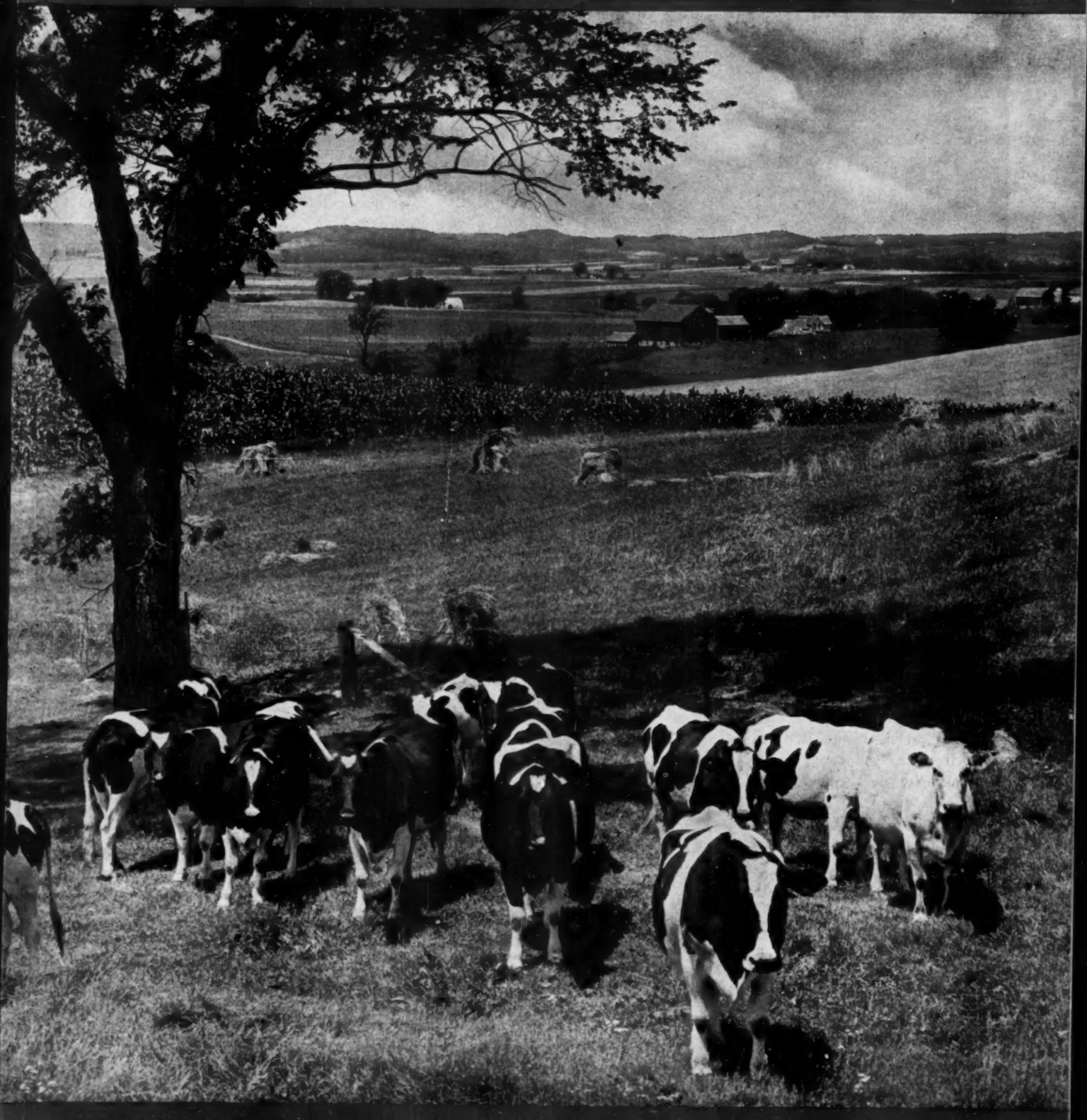
HOARD'S DAIRYMAN

JULY 25, 1954



THE NATIONAL DAIRY FARM MAGAZINE

You can make your "someday" come true now

YOU promised yourself, didn't you, that someday you would own a car that came up to your dreams?

That it would be a car of stature and distinction? That it would be luxuriously smooth and supremely able? That it would look and feel and perform the part of the car of a man at the top?

Well, sir—today can be that day.

For such a car is at hand now, more easily attainable than you may think. You see it pictured here, and the name is proudly spelled out on each rear fender: ROADMASTER.

It is custom production. Its appointment is subject to your individual taste. Its quality is the best that Buick builds. *Its price per pound is the lowest in the fine-car field.*

But apart from its impressive length and breadth and breath-taking beauty (it carries the world's newest body, with the panoramic visibility of Buick's famed sweep-back windshield)—this superb automobile is an automobile of supreme command.

When you drive it you will know that this is so.

When you hold reign on ROADMASTER'S magnificent V8 power, feel the smooth tranquility of Twin-Turbine Dynaflow, feather your way with the consummate ease of Safety Power Steering, sense the solid velvet of Buick's buoyant ride — then you will know that this is the car you always meant to own "someday."

So why wait? Call your Buick dealer today, or the first thing tomorrow. He'll gladly arrange a ROADMASTER demonstration and you can judge things from there.

BUICK *Division of* GENERAL MOTORS

ROADMASTER Custom Built by BUICK

WHEN BETTER AUTOMOBILES ARE BUILT BUICK WILL BUILD THEM

A.D.A. To Buy Disney

Walt Disney's great new fall television series, "Disneyland," will be sponsored by the American Dairy Association.

Full-hour film production, using the Disney characters of the past and several others that are being created, will be featured. Each show will be a separate, complete program. Some programs will be taken from the Disney file of films, such as "Bambi," "Fantasia," "Rob Roy," "Snow White and the Seven Dwarfs," "Cinderella," "Peter Pan," and others. Other shows will be built around new Disney characters.

The programs will appear in the evening, probably on a week night, but no official public announcement has been made by the American Broadcasting Company's network. At least three sponsors will purchase the program. A.D.A. messages will be on the show every week, however.

According to word received from the American Dairy Association, all available members of the A.D.A. executive committee were polled by telephone on the purchase of the Disney programs. The vote was unanimous in favor of the purchase.

The "Disneyland" show coupled with one segment of the Bob Crosby show, which would be continued, —and possibly a complete continuance of the Hope show on a full-sponsorship basis or perhaps a reduced-time basis — would mean about 45 million sales messages per week for the A.D.A. radio and TV advertising campaign.

Butter Sales Up

An increase in consumption of butter in American households is shown following the reduction in price supports on butter and other dairy products, according to a report issued by the U. S. Department of Agriculture.

The report is the first of a series to be issued on the basis of information obtained in a cooperative project financed by the American Dairy Association and the Department of Agriculture.

The report covers the month of April, when retail dairy prices declined as a result of the lowering of government price supports.

Household consumers bought an estimated 7 per cent more butter during a four-week period in April than during an average four-week period in November 1953–January 1954, the latest preceding months when purchases were not influenced by news reports of an expected lowering of prices.

Weekly estimates indicate greater increases early in April but smaller increases the latter part of April. Preliminary data indicate that sales were up about 10 per cent over the base period for early weeks in May.

"I doubt if you'll ever really get the hang of it!"

PAY YOURSELF A BONUS IN Better Feed

with a Clean-Cutting JOHN DEERE Forage Harvester

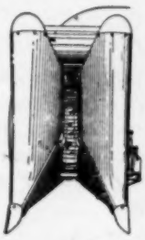
THERE'S not a doubt about it, you'll produce better feed—*and more of it*—make bigger profits when you turn all your forage harvesting jobs over to the brand-new John Deere No. 8 Forage Harvester.

Here's a machine that brings you all you've ever wanted in a forage harvester: three interchangeable harvesting units—row-crop unit, mower bar, windrow pickup—for fast, easy, once-over harvesting of all feed crops . . . eight different lengths of cut . . . positive feeding . . . constant knife register . . . "quick switch" discharge spout . . . rugged, quality construction . . . and much more.

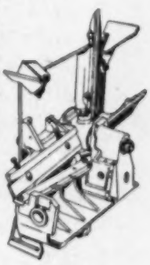
When you own a John Deere No. 8, there's no waiting for a custom operator . . . no delays that steal moisture and endanger preservation of silage crops. You take to the field when your crop is at its peak for top-quality ensilage, harvest it quickly to preserve maximum feeding value.

The drawings below and at the right tell in brief why the John Deere No. 8 makes better feed. For the full story, and a field demonstration, see your John Deere dealer.

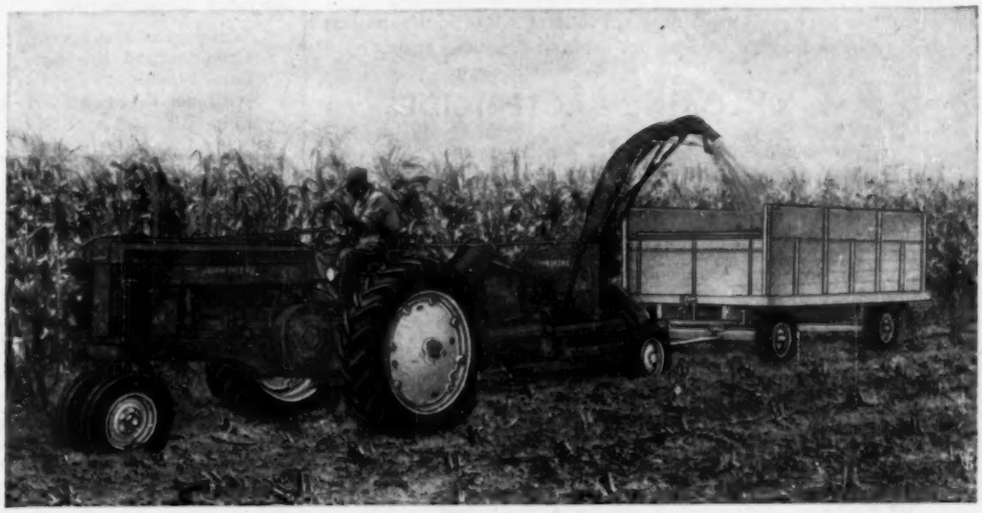
Three power-driven feed rolls and a conveyor—traveling at matched speeds—move crops positively to the heavy-duty flywheel cutter.



Wide, big-capacity row-crop unit with stationary side-knives and single-section sickle handles every crop with ease.



Here's the heart of the No 8—the rugged flywheel cutter that slices all forage crops clean and fast. The No. 8 is yours as either a four- or six-knife machine. Cob guards are also available.



Above, the John Deere team that makes light work of row-crop harvests—the powerful, rugged, economical John Deere Model "60" Tractor and light-running, big-capacity John Deere No. 8 Forage Harvester.

JOHN DEERE MOLINE, ILLINOIS

Send for FREE Literature
JOHN DEERE, Moline, Ill. • Dept. K14

Please send me literature on the John Deere No. 8 Forage Harvester.

Name_____

R.R._____ Box_____

Town_____ State_____

PROTECT MILK PROFITS WITH LO-BAX

CHLORINE BACTERICIDES

You need more than a good herd to make top profits from your dairy. For without proper sanitation, your bacteria counts go up, profits come down.

Lo-Bax, properly used, will end your sanitation problems with minimum cost and effort on your part. You'll find Lo-Bax chlorine rinse solutions provide quick, positive action on milk pails, cans, tanks and other dairy equipment. And Lo-Bax is so safe that it can be used freely on milkers' hands and cows' sensitive teats and udders.

In fact, you'll find countless uses for Lo-Bax throughout your dairy—it's the perfect all-round sanitizing agent. See your milk plant operator today for full information on both types of Lo-Bax . . . with and without a wetting agent.

LO-BAX CHLORINE BACTERICIDES

available with or without a wetting agent

LoBax-21. Chlorine with a wetting agent where extra penetrating action aids faster bacteria kill. Rinses freely. Exceptionally smooth and easy on milkers' hands and cows' sensitive teats and udders.

LO-BAX SPECIAL. Contains 50% available chlorine in dry, free-flowing form. Dissolves quickly in water, hard or soft, hot or cold, to make clear, fast-killing rinse solutions. Harmless to cows' udders and milkers' hands.

Ask your dairy plant about Lo-Bax chlorine bactericides or write us for complete information.

MATHIESON

MATHIESON CHEMICAL CORPORATION
Mathieson Industrial Chemicals Division
Baltimore 3, Maryland

3200

HOARD'S DAIRYMAN

The National Dairy Farm Magazine

Publishers
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COVER PICTURE

Selecting cover pictures is a ticklish business. First, we must show no partiality to any particular breed. Next, the picture must be a credit to the dairy industry and reflect good management practices. Further, every area of the United States must be represented in the covers that appear over a year's time. After these requirements are met, we can turn to technical excellence and variety of subject matter. Since the nationally known Indiana farm photographer team of J. C. Allen and Son came to central Wisconsin for this excellent photo, we felt we had moral backing for returning again to "America's Dairyland" for the cover of our July 25 issue.

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The receipt of Hoard's Dairyman is notification that money on subscription has been received. The label on paper will show date to which subscription is paid. Changes of address should reach us three weeks in advance. Include old address.

Unwholesome, immoral, and questionable medical advertising is excluded. A sincere effort is made to carry advertising of only reliable people. We will always take it as a favor to be notified promptly whenever any advertiser's dealings with the subscribers are not in good faith or evidence a lack of business honor. Advertisers recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

Hoard's Dairyman is published on the 10th and 25th of each month. Advertising copy for the 10th of the month issue must be received before the 15th of the preceding month. For the 25th of the month issue, copy must be received by the 1st of that month.

Washington Dairygrams

DAIRY PRICE SUPPORTS: HOUSE APPROVED 80 PER CENT PRICE SUPPORTS FOR DAIRY PRODUCTS FROM SEPT. 1, 1954 TO APRIL 1, 1955. BACKED NOT ONLY BY REPRESENTATIVES FROM DAIRY AREAS, BUT SOME CITIES AND SOUTHERN STATES, AS WELL. EFFORTS TO MAKE PRESENT 75 PER CENT OF PARITY CONTINUE FAILED BY OVERWHELMING VOTE. AMENDMENT TO RAISE LEVEL TO 82½ PER CENT MISSED APPROVAL BY NARROW MARGIN.

AG. COMMITTEE RECOMMENDATION TURNED DOWN. HOUSE REFUSED TO ACCEPT ONE YEAR EXTENSION OF 90 PER CENT SUPPORTS FOR SO-CALLED BASIC AGRICULTURAL COMMODITIES. WHITE HOUSE AND BENSON WANTED FLEXIBLE PROGRAM, 75 TO 90 PER CENT, BUT LEADERSHIP OFFERED COMPROMISE OF FROM 82½ TO 90 PER CENT. HOUSE APPROVED BY 229 TO 170. ISSUE NOW GOES TO SENATE.

FARM PRICES CONTINUE TO DROP. PRICES RECEIVED 4 PER CENT LOWER WHILE THOSE PAID DROPPED LESS THAN 1 PER CENT.

MILK POWDER PRODUCTION FOR MAY HIGHEST ON RECORD FOR THAT MONTH. A 6 PER CENT INCREASE OVER YEAR AGO, TOTAL PRODUCTION 15 PER CENT OVER LAST YEAR FROM JANUARY TO MAY.

DAIRY IMPORTS. PRESENT QUOTAS WILL BE EXTENDED FOR ONE YEAR FROM JULY 1, 1954.

SURPLUS DISPOSAL. CONGRESS SENDS BILL TO PRESIDENT AUTHORIZING SALES NOT TO EXCEED $700 MILLION OF SURPLUS AGRICULTURAL COMMODITIES, INCLUDING DAIRY PRODUCTS, OVER THREE YEAR PERIOD TO BE PAID IN FOREIGN CURRENCIES. ALSO $300 MILLION PROVIDED FOR DONATION OF SURPLUS COMMODITIES FOR FAMINE RELIEF AND OTHER EMERGENCY ASSISTANCE DURING NEXT THREE YEARS.

IMITATIONS. HEARINGS HAVE BEEN HELD ON BILL TO PROHIBIT USE OF WORD "IMITATION" ON LABELS IN MARKETING OF IMITATIONS AND SUBSTANDARD PRODUCTS, EXCEPT UNDER CERTAIN CONDITIONS. PROPOSAL SUPPORTED BY REPRESENTATIVES OF DAIRY PRODUCERS.

Easy To Order Or Renew!

HOARD'S DAIRYMAN ☐ New ☐ Renewal
Fort Atkinson, Wisconsin

I enclose $_____. Please send me Hoard's Dairyman for the next _____ years.

Name_____R. F. D.____

P. O._____State_____

SPECIALS

THREE YEARS $2.00 FIVE YEARS $3.00
(Reg. Price 1 Year $1.00)
(CANADIAN: 1 Year—$2.00 — FOREIGN: 1 Year—$3.00)

New Idea-Horn Loader ...too useful to take off

"50" LOADER with buck rake attachment. Lowest cost way to handle hay. Also carries 10 to 15 bales at a time. Mechanical trip for dumping. Loader available with single or double ram cylinders. (New low price on single ram cylinder model). Fits row crop tractors. Conversion model for tractors with adjustable front wheels. Up to 2,500 lbs. breakaway power.

"LS" LOADER with stacker attachment. Bucks and stacks up to 1000 lbs. Unloading gate hydraulically operated by driver. Loader fits large tractors with non-adjustable front and rear wheels. Extra wide and standard models. Displacement type, single ram cylinders. Like the "50", breakaway power up to 2,500 lbs. Works with "built in" or NEW IDEA-Horn hydraulic power unit.

COUNTERBALANCED, clean scouring manure bucket is original equipment on all NEW IDEA-Horn loaders. Removeable dirt plate. 7 replaceable, re-rolled rail steel tines. Notice sturdy frame made of heavy duty steel tubing. Joints are coped before welding for extra strength. Low clearance, compact, easy to work in cramped quarters. Breakaway power at or *below* ground level — up to 2,500 lbs.

"505" LOADER for small row crop (with or without adjustable front wheels), small standard, and small track-type tractors. Cylinder support-shaft lets loader lift more weight with less strain on tractor. Up to 1,600 lbs. breakaway power.

NEW MODEL for Allis-Chalmers "WD" and "WD-45". Uses tractor hydraulic system. No need to remove fenders or belt pulley. Row crop or conversion models. Up to 2,250 lbs. breakaway power. Single ram cylinder type with chevron-type seal.

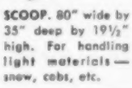
6 OF 10 EASY-ON INTERCHANGEABLE ATTACHMENTS

ANGLE DOZER BLADE. Adjusts 12 & 24 degrees right or left or straight. Tilt also adjusts. Equipped with skid shoes.

EXTENDIBLE BOOM. Lifts from 14 to 20 ft. Handles 1000 lb. loads on "50" and "LS" loaders, slightly less on "505".

GRAPPLE FORK. Ideal for loading and unloading loose or baled hay, piling brush, etc.

DIRT BUCKET. Made of 3/16" floor plate. Reversible cutting edge. 6 or 9½ cu. ft. sizes.



SCOOP. 80" wide by 35" deep by 19½" high. For handling light materials — snow, cobs, etc.

PITCH CONTROL. Gives 2-way control of bucket or scoop from tractor seat for digging, dumping, skimming.

Please send illustrated information

NEW IDEA FARM EQUIPMENT COMPANY AVCO
Dept. H-1393, Coldwater, Ohio

NAME_____

☐ Loaders and attachments
☐ Need for schoolwork
☐ I farm____acres

ADDRESS_____

COUNTY_____STATE_____

Opinions, Brickbats, Bouquets

These columns are open to the readers of Hoard's Dairyman for the expression of their opinion on any subject, whether radical or conservative, destructive or constructive, wise or foolish, critical or commendatory. Hoard's Dairyman assumes no responsibility for opinions expressed.

Powder and Water

If we could advertise milk as well as Time advertised itself in the recent Hoard's Dairyman, I bet we would sell milk. I hope it sells Time. It is the last magazine I would do without, though it would be a struggle to let the Saturday Evening Post go.

I have thought for years that a higher butterfat minimum in legal milk would be a fine way to soak up the butterfat surplus, but 4.2 is really pushing it up. It would sell milk though.

I recently had a bottle of store milk, and I swear it tasted as if it had been made of fat-free powder and water. The company distributing it spends a lot of money on radio, advertising what grand milk they sell.

My kids and those of the neighbors all complain about the funny taste of the milk they get at school. And it's not just the difference between raw and pasteurized either. We home pasteurize all of ours.

Massachusetts. ARTHUR A. GREEN.

Swiss Farmers Buy Cheese

I have just received a letter from a friend in Switzerland who is a big dairy farmer. They also have a terrible surplus of milk. In order to ease the situation, each farmer who sells 500 pounds of milk to a cheese factory is required to buy one pound of cheese.

I wonder if such a program would not help our dairy situation here.

Arkansas. ALBERT STEFFEN.

Down with Salt Block

You made a mistake in having that salt block on the cover (May 25). That method is the second sorriest possible in salting cattle.

An inexpensive salt box, with a cover to keep out rain, can be made quickly and loose salt supplied. Animals will consume five times as much loose salt as brick salt. And they won't take more than they need.

No animal is ever properly salted with brick salt alone. Actually, rain gets more of the NaCl than the cattle. Cows get tired licking and quit before they have enough.

If you want a picture of a practical salt box that any farmer can make, let me know and I'll be glad to furnish it free.

Down with block salt!

CLAYTON STEPHENS, D.V.M.
Mississippi.

Would Pay Testing Bill

It is all in the way you look at it, I guess. In your issue of May 25, E. M. Perala admits to not being an expert breeder, while running a herd average of nearly 500 pounds butterfat.

On the same page, S. F. B. (without boasting) admits to being a success in dairying with a 415-pound herd average for one of the two years that he was in D.H.I.A.

It would be my guess that Perala probably has a few dairy cows to sell now and then. From a herd like his, even a little extra on a cow sale will pay his testing bill; a bill that for him has already been paid for with the improvement in his herd from year to year.

I would not deny that S. F. B. has been successful. I would question his statement that his success was in dairying. If his success had anything to do with cows, it was in regard to the way he handled his Holsteins as a dual-purpose breed. He probably would have done better with an out-and-out beef breed. Most certainly he would have had much less trouble with mastitis and sterility.

Indiana. J. R. STINGLE.

"D.H.I.A. Has a Place"

I agree, to a certain point, with the letter, "Doesn't Need D.H.I.A.," by S. F. B. of Maryland in your May 25 issue.

True, if S. F. B. doesn't raise any replacements and lets mastitis and other health problems do his culling, money spent for D.H.I.A., as well as the time spent by the D.H.I.A. supervisor, is wasted. As for his 415-pound fat average, it has been my experience that dairymen with a commercial herd who buy and sell can maintain a uniform average.

If I may, I would like to carry this one step further and still agree with S. F. B. that some dairymen in D.H.I.A. are not getting the most out of their testing money in that they do not evaluate their testing records, and are in a testing association merely to check on their test at the milk plant or because their neighbor is in the testing association.

I firmly believe that D.H.I.A. has a place in the program of dairy cattle breeders who are striving to get the most out of their cattle in the way of present production and future production out of their offspring.

New York. PETER STAMSKI.

Could Have Earned More

After reading "Doesn't Need D.H.I.A.," by S. F. B. from Maryland, I just couldn't keep from writing.

Mr. B., maybe you have "gotten by" with not belonging to or staying in a D.H.I.A. — but that is a misleading statement.

In our experience, we, as you said, sold what we would have thought our best cow. She was from a good line of cows, grand champion at two fairs, and a good breeder. She gave the most milk daily of any cow we ever owned, but at the end of the year was way below our herd average.

This cow would milk very heavily for three or four months but would drop very low for the balance of the year. Now, I have some cows that may never give more than 55 or 60 pounds daily but maintain that for several months, thus ending a very good yearly record.

Maybe, Mr. B., had you stayed in D.H.I.A. you would have been more successful in the number of bonds and stocks you have acquired; or maybe you would have three farms instead of two.

You also said that you had a herd average of 415 pounds fat. That's fine, but how did you get it? Anyone can make a high average by selling dry cows and replacing them with fresh ones.

It is not necessary to belong to D.H.I.A. to be a successful dairyman, but it is a much surer way. I believe that no farmer can successfully raise replacements and improve his herd without some kind of records such as D.H.I.A. affords.

How about a cow's percentage of butterfat? Can you tell by looking at milk what it tests?

ARTHUR E. DUFFIELD, 2ND.
New Jersey.

Cows Instead of Pounds

I like your idea of a base and surplus program but I would suggest figuring the base on number of cows rather than pounds of milk.

ISABELLA C. WILSON.
West Virginia.

Need Determination!

I would like to tell "A Reader" from West Virginia (May 10) a few things. My husband and I were 16 and 17 when we were married. We had no money but he, too, loved the soil and to watch things grow. That was back during the depression. Then he got a job on a farm.

We had the best roof over our heads we had known during our married life. We made more money than we ever had before. We started out at $15 a week with the house and a few extras included. And we paid old bills while we lived on that $15. Then my husband got a raise of $5 a week. We were rich enough then to risk going in debt for 30 acres of land and paid for it out of the $20 a week.

All this time we were adding children to complete the family. The four children became old enough to go to school, and my husband and I decided it was time to try farming on our own. We moved on that 30 acres with one cow, two heifers, three geese, four children, a 1933 model car (in 1946) and a strong determination. We went in debt for more land, more cows, and machinery.

Now we have 160 acres, a good nine-room home, four healthy children (two in high school) and still the determination. Yes, we still have some debt, too, but we don't worry about it because we feel where there is a will there is a way and somehow there has always been enough to go around.

But it was the tenant-landlord relationship that gave us our start and it is still helping us.

Ohio. MRS. ROBERT HILL.

" . . . Has Paid Good Returns"

Regarding the letter, "No Chance for Tenant," in your May 10 issue, I would like to state that my experience has been opposite that of the writer from West Virginia.

Back in 1941 I bought a small farm and started a Guernsey dairy herd, operating with a renter on a 1/3–2/3 basis. Later, when he had saved enough money, I sold him one-half in all stock and equipment and operated on a 50-50 basis. After nine years he bought a farm and moved to it; now he has 85 acres of very good land and a good herd of Guernsey cows. The farm is well-improved with a modern home and is debt free.

I now have another man starting the same way and I think he will equal the record of the first man, if market conditions are reasonably good. Like the first man, he is a good farmer, an extra good dairyman, and a hard worker. I think any renter who does his part deserves a modern home for his family with time-saving barn and other buildings, and all good farm equipment.

In fact, there is every reason for the tenant and his family to have a modern home so he will be happy and contented, and will want to stay on and make money for himself and the farm owner. I think my investment in a good, modern home and farm equipment for the renter has paid good returns, and has helped two families in the same manner I was helped more than 47 years ago.

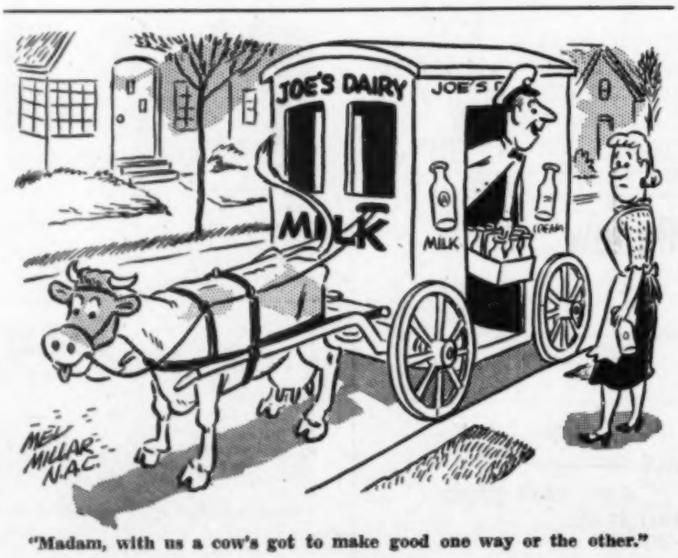
Indiana. A SUBSCRIBER.

Hysterical?

Aren't we getting a little hysterical?

Right now, there has been much publicity and talk, both inside and outside the dairy industry, about butter and what to do about it. Almost any plan which comes up is going to sound better than it might be.

The idea of increasing butterfat



"Madam, with us a cow's got to make good one way or the other."

in the bottle, however, described in your "They Put the Surplus in the Bottle!" article (April 25) has a lot of weaknesses.

If it has worked for the people out at Tillamook, Oregon, certainly that's a fine thing and we wish them future success. Around here, however, raising the test on the streets is going to cause a lot of trouble. The fastest increasing dairy products in our market are buttermilk, fat-free milk, and this chocolate mix made out of skim.

One of the reasons we have a fat surplus is because people don't want any more fat and just aren't buying it, whether it happens to be lard, butterfat, or even potatoes.

There undoubtedly are going to be ideas which will prove successful in satisfying the fat problem but trying to sell a 4.3 per cent milk isn't one of them.

Kansas. JACK CARLIN.

Uses Sterile Bull To Help Detect Cows in Heat

On our farm located in Champaign County, Ohio, we have been breeding our Holstein herd artificially since 1950.

However, we have been most disappointed in finding that in two years most heifers in a group of 10, freshening for the first time

"Detector"

in September and October 1951, have had their freshening dates retarded to January and February. The record shows this was not due to poor conception. Instead, they were not detected in heat and, consequently, were not bred within three months after calving.

At first, I was inclined to blame my partner-operator for negligence but soon found that our experience was shared by others. When a majority of perfectly healthy cows are not bred or detected in heat within a reasonable time after freshening, something is wrong with the method used to discover them in heat.

Our cows run loose in a loafing shed. They are in the milking stable just long enough to be milked and eat their grain. The operator or milker is busy every minute of that time. During the last five years the number of cows in the herd has been doubled, with no increase in help but with more mechanical devices for feeding and milking. Naturally, the operator has less time to observe the individual cow.

This last spring my disappointment in this retarded freshening reached a point where I was about ready to discontinue artificial insemination. Then the idea occurred to me that we could continue to use the valuable bulls of the Northern Ohio Breeders Association but keep a sterile bull to detect the cows in heat.

The idea was presented to members of the veterinary college and the dairy science department of the Ohio State University, and received enthusiastic endorsement.

A young dairy bull of another color was purchased in September 1953 and was operated on by Dr. Tharp of the Veterinary Clinic, Ohio State University, so that he could not produce offspring. The operation did not deter his desire to serve a cow.

The bull was purchased at beef prices for about $85. The cost for a blood test, board, and medicine while at the clinic was about $25. We called the bull "Detector" and turned him in with the herd on the 1st of November 1953. We now have the results of our first season's breeding and are most happy.

Out of 31 cows that freshened between June 1 and December 31, 1953 all but one are bred to freshen between August 1 and November 30, 1954. Every cow was detected in heat and was bred artificially. One cow was bred seven times and is not with calf.

Out of the 30 cows due to freshen, our conception shows:

17 safe on first service,
11 safe on second service,
2 safe on third service.

Of those bred two or three times, four were bred within six weeks after calving, which is considered too soon. We wanted them to freshen early.

For the coming winter we have these 30 cows due to freshen, as follows:

13 due in August 1954.
9 due in September 1954.
5 due in October 1954.
3 due in November 1954.

Needless to say, we are more than delighted with our results with "Detector." We are now assured of cows freshening in time for production next winter.

Ohio Robert Wylie

Law of Supply and Demand

I always like to read the O. B. & B. column. I want to take my hat off to William E. Ott, Sr. of Ohio, to John Campbell of New York, and to I. L. Barr of Texas for what they wrote in the May 10 issue. There are a few farmers who have some gray matter in their heads.

Farmers, let us wake up! Let us have freedom. Let us run our own business.

We don't want government controls. We don't want government support. We don't want a subsidy. We don't want a ceiling price. Let the law of supply and demand set the price.

Michigan. BERT WIGGINS.

Send Them to Butcher

Noted an inquiry on how to stop cows from sucking themselves. Some make a halter. The nosepiece should be of stiff leather and should come low on the nose. Drive some sharp-pointed nails (about 10 d) through the nosepiece. A good idea is to line the nosepiece with another piece of leather. This protects the nose and helps to hold the nails in place.

Some take a stick and fasten one end to a halter and the other end to a surcingle about the body. The stick passes between the front legs.

There are also commercial weaners on the market. These fasten in the nose.

If the cows are not too valuable, the surest way is to send them to the butcher.

New York. W. J. GATES.

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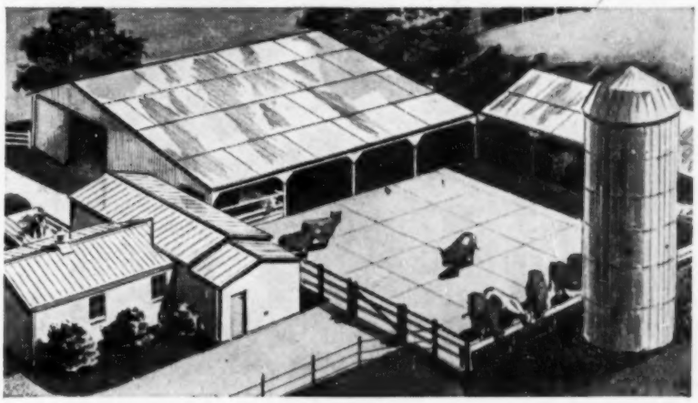

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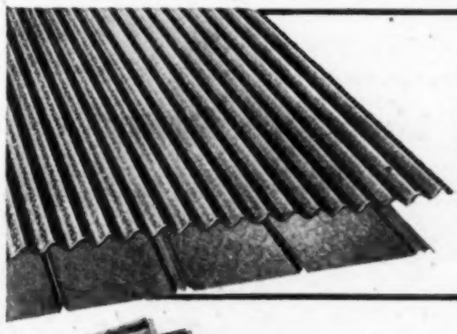

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Law and the Dairyman

Buying on the Installment Plan

Buyers should know their legal positions when buying machinery and personal property on installments.

by J. H. Beuscher

ANCESTORS of many of us, a hundred or more years ago, bought virgin farm land for little or nothing down with the balance payable over years of time.

Today installment buying has been adapted to personal property in a mighty big way. Farmers and millions of others buy household appliances, cars, and furniture on installments. To farmers, the purchase on the installment plan of modern, expensive farm machinery is much more important.

The buyer gets possession and uses the machine to help earn the future payments. Because he has possession, the buyer, under the law of most states, has the "risk of loss." That is, if the machine is accidentally destroyed or damaged while the buyer has it, the seller can, nevertheless, insist on his payments.

The buyer, therefore, should be careful to protect against this risk by buying insurance. Incidentally, some buyers who commit themselves to large future payments also wisely buy cheap-term life insurance in an amount sufficient to protect widows and children from the debt should death occur before the installments are paid in full.

There are two ways of legally securing the seller for the future installments — other than having a well-fixed friend or relative cosign for the debt. One way is the conditional sale contract, which is always printed on a standard-appearing form and which most buyers sign without reading. Under such a contract the seller reserves "title" (ownership rights) but the buyer is given present-use rights.

The other way of securing the seller is not as popular in most places as the conditional sale. Under this second method, the seller gives the buyer a bill of sale and takes a chattel mortgage back to secure the unpaid installments.

Very often the seller takes the security paper, be it a conditional sale contract or a chattel mortgage, and sells it (discounts it) to a bank or finance company, so that the buyer does not actually make payments to the seller but to the bank or finance company.

In such cases, if the buyer is unable to keep up the payments, he is in for much more vigorous enforcement action than the original seller — a businessman interested in building up good will — would have used.

The rights of the creditors, in case the buyer fails in his payments, should be more clearly understood by installment buyers.

In the case of the chattel mortgage, the creditor can retake the machine, either by self-help or through court action. Then he can have it sold at a foreclosure sale. If there is a balance still due after applying the sale proceeds, the creditor can get a money judgment for the balance. (Often, by agreement between the farmer and his creditor, the formal foreclosure sale will be avoided and a farm auction sale will be advertised and held instead.)

In at least 30 states, under a conditional sale contract, the creditor's recources are now virtually the same as those under a chattel mortgage. At first, many American courts just gave the creditor the choice of taking the article back and call it quits; or suing for the money and leaving the article in the buyer's hands.

Today, as indicated, most states permit the conditional sale creditor to retake, sell, and get a deficiency judgment just as in the case of a chattel mortgage. In fact, in 10 states — Arizona, Delaware, Indiana, New Hampshire, New Jersey, New York, Pennsylvania, South Dakota, West Virginia, and Wisconsin — the Uniform Conditional Sales Act is in force. Under it, there must be a foreclosure sale if the buyer has paid more than 50 per cent of the price.

In short, where Joe Braun buys a tractor with a chattel mortgage or conditional sale to secure the unpaid balance, in most states, he may, if he fails to meet his payments, lose the money he has already paid in, lose the tractor, and possibly have a deficiency judgment hung around his neck to boot.

Suppose the buyer misses one or more payments, under what circumstances can the creditor retake the machine by self-help without suing in court?

The law answers: Where the retaking can be done without "breaking the peace" or injuring anyone.

When buying used machinery, either for cash or on installments, it is well to be sure there is no chattel mortgage or conditional sale contract filed against the machine in the public records. Check the records in the place where the seller lives as well as in the place where the machine has been kept and used. Otherwise, you may find you have bought subject to the rights of a chattel mortgage or conditional sale creditor and you may have to pay a second time to keep the machine.

The author is professor of law and farm law at the University of Wisconsin and author of "Law and the Farmer," a national farm law book. This book is available to readers through the Hoard's Dairyman Book Department, Fort Atkinson, Wisconsin. Enclose $4.95 for each copy.

State laws differ. This article was written to give general information, not specific legal advice. For the latter, the reader should consult his local attorney.

HOARD'S DAIRYMAN
Founded in 1885

"I Am a Dairy Fieldman"

A few have abused me, but on most farms I have been welcome. Here is the inside story of my work. Here, too, is an actual report on Carl and Hilda Jacobson, a young couple with whom I have worked.

by Bill Jordan

WORKING for one of the larger dairy plants in western Minnesota, my job is to keep an adequate supply of Grade A milk available for a city of 65,000 population. This requires not only securing new producers, but constant checking of all shippers to make certain milk quality remains high. It annually takes around 30,000 miles of driving, and several thousand calls to do the job.

The life of a dairy fieldman, like the lives of the dairymen he serves, is not a bed of roses. He must meet and work with people of many different temperaments. He must be equipped with a thorough knowledge of the problems dairy farmers face 365 days of the year. Above all, he should have a background of practical dairy farm experience.

On top of these requirements, he must be an optimist and have a world of patience. Dairy farmers are, rightfully, independent. Changes, even for the better, often do not come easily.

The writer does not claim to have all these desirable qualities, but hopes he has developed some of them through years of experience. I would like to take you along on one of those trips in the hope that some small measure of profit may come to the dairy industry in seeing how others have profited by doing things in a little different manner.

Hilda and Carl Jacobson are a young dairy farm couple new to our supply area. Driving past their farm seven years ago this spring, I noticed a herd of about a dozen nice Holstein cows in the pasture. Where there are cows there must be milk, so I drove in.

The family had just finished dinner. I told them I had noticed the fine looking cows and that we were in need of more Grade A milk.

"Grade A," said Carl, "you sure don't know our circumstances."

He then went on to explain they had just bought the farm the previous year on the proverbial "shoestring," that they were heavily in debt, and had lost over half their first crop in a hailstorm. They didn't know how they were going to meet the mortgage payment and taxes, let alone spending a lot of money fixing up for Grade A milk.

When Carl got through I felt like offering my sympathy, and excusing myself as best I could. However, there was something about this young couple which appealed to me. I had a hunch they would make good Grade A producers. Their household furnishings were very plain and some of it, obviously, secondhand, but everything was scrupulously clean.

Carl proudly informed me he had joined the D.H.I.A. and was very pleased with the records some of his Holsteins were making. The milk was being separated; the cream sold to the local stations, and skim milk fed to chickens and calves.

I suggested we look over the barn. The young couple reluctantly agreed, feeling, no doubt, it was hopeless. The foundation was native stone and the framework looked sound. However, the old plank floor was beyond repair, and the loft floor full of holes. How I hated to tell them it would need a complete concrete floor with gutters and stanchions, and a new floor in the loft.

I knew they were thinking how dumb I must be to even suggest Grade A. When I told them they would need a milk house with running water piped in I could see they were ready to throw in the sponge. However, I decided to give them the only possible solution and leave it up to them.

I got out my writing pad and said, "Now, listen, folks, as it is now you don't know how to meet the payments. Isn't the only possible answer a larger income from those cows?

"If you could show the production credit people where an investment of $1,200 to $1,500 would almost double your income, isn't there a chance they might go along with you?"

They agreed that might be possible but wanted to know how they could prove it.

I figured their present herd average at about 14 pounds of butterfat per day. The differential between sweet cream and Grade A milk prices gave us a gain of $6 per day. Allowing for transportation and replacing the skim with substitutes left us a net gain of $3.60 per day. Extending this figure for 15 months would, apparently, pay off the investment.

Right here I entered a word of caution. "That figure I gave you of $1,200 to $1,500 does not include a penny of labor. Unless I overestimate the ability of you young people, you can do all the work yourselves, especially if you can arrange to exchange some help with your neighbors. The figures I gave you are for material and equipment only. If you want to give it a try, I will leave these figures with you to show your banker."

I could see a look of determination and possibly a little hope come over their young faces.

It was April when I made by first call on the Jacobsons. I managed to call on my young prospects again May 17.

They had about given me up. They said they had called on Mr. Fleming, the production credit manager, and he told them he wanted to talk to me. My better judgment told me not to do it, as making financial arrangements for prospects is not part of my job. However, I could see they would be deeply disappointed if I turned them down, so the three of us drove to the office.

I was introduced to Mr. Fleming, and then was subjected to one of the biggest letdowns of my life. Thomas Fleming, I judged, was in his early 60's. He *(Turn to page 668)*

This is the first in a series of six articles. To protect the privacy of persons discussed, fictitious names are used and the author, a veteran fieldman, is using a pen name.

Farm Flashes . . . .

Seasonal reminders and research notes for the dairyman

TAKE PRECAUTIONS AGAINST OVERHEATING

With hot weather and the summer rush of farm work, it is easy to be overcome by heat illness. Sunstroke follows prolonged exposure to the sun, while heatstroke comes from ex-

cessive heat with or without exposure to the sun. The effects are the same and either may be fatal.

Symptoms are hot and dry skin, face red and flushed, breathing hard and loud, and pupils of eyes enlarged. Unconsciousness may follow in severe cases.

Here is what the National Safety Council suggests for sunstroke or heatstroke:

1. Move the patient to a cool shady place; strip to the underclothes; lay on back with head and shoulders raised.
2. Apply ice or cold wet cloths to head; cool the body gradually with a cool bath or with a hose or wet the clothes and rub limbs toward the heart.
3. After treating for several minutes, stop and observe patient. If skin becomes hot again, resume treatment.
4. If he is conscious, give cool drinks, not ice cold. Do not give stimulants.
5. Get the patient to a doctor or a hospital as soon as possible. Continue the treatment in the ambulance.

With heat exhaustion, the patient's skin is cold and clammy. A simple rule may serve as a guide and avoid treatment confusion. Briefly, it is this: If the patient is cold, make him warm; if he is hot, make him cool.

PREVENT SUMMER MILK SLUMP

Hot weather has been known to lower the daily milk production of herds as much as 20 per cent.

Experiments in California have shown that when the temperature goes above 85 degrees the temperature of the cows also rises markedly; their appetites diminish; they produce less milk and the fat test and the amount of solids-not-fat also declines.

The ideal place for cows in hot weather is a green pasture where shade trees are available. The temperature in such an area is as much as 10 degrees lower than that of a bare loafing yard or a drought stricken area. Furthermore, cows do not have to spend much time grazing to get their fill when they are in good pasture.

Many dairymen have profited by making artificial shade by means of temporary shelters, open on all sides, built with several uprights and holding cross pieces covered with leafy brush or lightweight boards. The Ohio station has used a shelter built on skids so that it can be readily moved from one field to another.

In some areas it is a common practice to stable the milking herd in a fly-free barn for a couple of hours in the middle of the day. They are given a feeding of hay or silage. Cows just don't like to graze in the hottest part of the day; the result is they are not kept filled up with the kind of roughage needed to make the expected production.

CHECK COMBINE — SAVE GRAIN

If your combine is not operating properly, you can lose as much as six bushels of grain per acre.

It's no problem to check how efficiently the combine is operating. Just make several grain counts behind the combine. If 16 or 18 grains are found in one square foot behind the combine, the loss is likely to run more than two bushels per acre. With this much loss, the combine should be carefully checked.

Certain adjustments are important in conserving grain. For example, such things should be checked as reel speed and conveying mechanism; cylinder and concaves; separating racks, sieves, etc.; air flow and other cleaning elements.

Other grain wasters are poor hitching and turning practice; dull cutting parts and poor sickle adjustment; failure to adjust reel and cutter bar as heavy or light crop or green growth is encountered; insufficient tractor power to pull combine and drive threshing mechanism through power take-off; driving too fast.

If grain losses continue after adjustments have been made, check further into the instruction book furnished with your combine.

USE POWER TAKE-OFF SHIELDS

Before 1954 was two weeks old, one Illinois farmer had been injured and another killed in accidents with power take-off shafts.

Such needless tragedies take an upturn during the hay and grain harvesting season. Power take-off accidents can be prevented by simply making use of shields provided by the manufacturer.

An Illinois engineer says shields are now standardized so that they will fit every make of tractor. Machinery manufacturers have taken another step toward protecting the farmer by making "non-removable" shields. These cannot be taken off without taking the universal joint apart.

The biggest problem—and the one that manufacturers cannot do anything about—is the millions of implements with removable shields. On these it is up to the farmer to see that the shields are in place.

FOR SAFE FARM STORAGE

If grain is not at a safe storage moisture content when harvested, it will heat and spoil if stored.

A Rutgers engineer says the easiest way to remove excess moisture is to blow natural air through the grain. If stored in bags, an air tunnel can be made from the bags. Use wood slats on top of two rows of bags to support the bags on top. The tunnel should be kept long and the depth of grain shallow.

If your grain is stored in bins, a false floor can be made to let the air under the grain. Or, lateral ducts can be laid on a tight floor and connected to a main air tunnel along the bin side. The false floor or the ducts should be covered with welded wire mesh to support screening nailed over the framing.

Four to five cubic feet of air per minute for each bushel of grain will do an adequate job of drying. The type of fan generally used for hay curing is also suitable for grain drying.

DON'T MIX OLD HENS WITH PULLETS

Your pullet flock will be a lot safer from disease if you sell off the old layers in the fall. A Michigan poultry specialist reports that mixed flocks of old and young chickens have a higher incidence of avian tuberculosis than those with only young pullets.

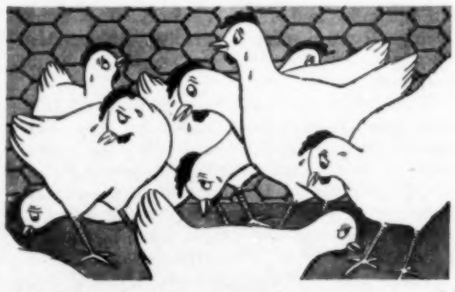
Selling the older hens before taking pullets off range will give you a chance to clean the laying house thoroughly, too. When you clean an empty house there is a better chance of destroying parasites and disease organisms.

After cleaning the house thoroughly, a strong lye solution is recommended. For scrubbing the interior one pound of lye to 10 or 15 gallons of water is a good mixture. A creosote disinfectant should be sprayed on the side walls and roosts and forced into cracks and crevices.

Be sure to use rubber footwear and rubber gloves when you are working with creosote and lye.

PROTECT CHICKENS WHEN HAULING

During the hot months chickens easily suffocate in transit when transportation conditions are poor. A Rutgers University poultryman says not more than 25 birds per crate



should be the rule during hot weather, and then only when small broilers are sold. Broilers weighing two to three pounds should be limited to 15 birds per crate, and all birds over four pounds should be limited to 10 birds per crate.

When loading crates on the truck, be sure there is plenty of ventilation around them. See that the birds are protected by cover from the hot sun. This is especially important when trucks have to stand in line when unloading at auction markets. Dead birds and birds suffering from heat prostration are your loss.

THEY SELL WELL. Graded from Good to Commercial, at from 1,050 to 1,100 pounds, they brought within $3.00 of the top of the market.

Does it pay to Feed Out Holstein Steers?

After feeding out over 100 Holstein steers, researchers at Nebraska tell us how much feed it takes to bring a steer to 1,100 pounds and what it will grade at market.

by Marvel L. Baker

MANY dairymen may be overlooking a good bet in not growing and fattening surplus bull calves. The common practice is to sell bull calves as veal soon after birth. This is done because it is not considered profitable to feed the calves milk when it can be marketed to good advantage.

Whether the farmer will find it profitable to feed the calves instead of selling them depends upon conditions, which vary greatly from place to place. It also depends upon an understanding of what can be done with the calves and how it can be done.

Some may even question whether we should be interested in the problem now that we have a plentiful supply of beef. However, farming is a highly-competitive business and each farmer needs to take advantage of whatever possibilities are offered.

The Nebraska Agricultural Experiment Station at its North Platte and Scottsbluff stations have fed more than 100 calves and obtained data on them. This work covered the period from birth, or within a few days after birth, to a slaughter weight of from about 1,000 to 1,100 pounds.

In the work at North Platte, grade Holstein bull calves were bought in southern Minnesota and trucked to North Platte. They were from 2 to 10 days old. Soon after the calves were unloaded, they were fed approximately 2 pounds of whole or colostrum milk. The milk was increased slowly until the calves were receiving 10 pounds per day within about one week.

They were encouraged to eat grain. By the end of the second week many of them were eating a little of a mixture of corn and oats each day. They were also offered good quality alfalfa hay and began to nibble at it within a few days.

How calves were started . . .

After four weeks the calves were weighed, tagged, castrated, and put on test. They were then fed for about 150 days. During this period they were given good quality alfalfa hay. They were also fed a concentrate mixture of:

150 pounds ground yellow corn
150 pounds whole oats
6 pounds steamed bone meal
3 pounds salt.

In some cases the alfalfa and grain mixture was fed with 10 pounds of skim milk per head daily.

In others, protein-rich feeds were added to the grain mixture to give the calf approximately the same protein intake as that of the calves fed skim milk.

At North Platte, blood meal proved unpalatable and, consequently, unsatisfactory when used as the only protein-rich feed in combination with the grain mixture. Tankage alone also was somewhat unsatisfactory. However, several combinations of protein-rich feeds proved quite satisfactory.

In one comparison, calves with an initial weight of about 120 pounds consumed in 154 days:

538 pounds of the grain mixture
544 pounds of alfalfa hay
1,540 pounds of skim milk.

They made an average gain of 305 pounds in this period.

A similar group of calves, fed a mixture of 20 pounds of blood meal and 10 pounds each of linseed oil meal and soybean oil meal plus 300 pounds of the standard grain mixture, made an average gain of 295 pounds in the 154-day period. They consumed:

548 pounds of the concentrate mixture of corn, oats, blood meal, linseed and soybean oil meal, and mineral
656 pounds of alfalfa hay
70 pounds of skim milk early in the period while they were being changed over to the concentrate mixture.

There was only a slight difference in the general appearance of the two lots of calves at the end of the feeding period.

Other satisfactory combinations of protein-rich feeds added to 300 pounds of the corn and oats mixture were 30 pounds of meat scrap and 10 pounds each of linseed and soybean meal; 20 pounds of dried whey, and 10 pounds each of blood, linseed, and soybean meal. There are doubtless many improvements which can be made in these rations.

After the calves reached weaning age they were grazed on native grass pasture for an average of approximately 170 days. The gains on pasture varied greatly, averaging slightly more than 1.1 pounds per day. With heavier calves or with thin steers the gains should average up to 1.5 pounds per day.

Gains obtained on pasture will depend upon a number of factors, such as the age and condition of the calves, and the abundance, palatability, and nutrient value of the grass. It is probable that with the calves in these trials, it would have been advisable to give them some good quality hay in addition to the pasture in the early part of the grazing season, principally because the calves were small.

If calves are grazed late in the season and the grass becomes dry, the grass may be so low in protein, phosphorus and palatability that the intake of nutrients is reduced to the point where the calves fail to make satisfactory gains.

Fed heavily on corn silage . . .

After the grazing season the steers were fed in dry lot. At this time they weighed approximately 625 pounds per head. They were fed heavily upon corn silage in the early part of the feeding period. Data from one lot will be cited as an illustration.

This particular lot of steers had an average initial weight of 618 pounds into the feed lot. They were fed for 194 days and made an average daily gain of 2.3 pounds per head. During the first 84 days they were given all of the corn silage they would eat, 0.5 pound of soybean oil meal, and 4 pounds of chopped alfalfa hay. For the next 55 days dried beet pulp was added, and by the end of this period they were eating 4 pounds per day.

Dried beet pulp was used because it happened to be relatively cheap at the time. Ground ear corn or other similar concentrates would have done at least as well. For the last 81 days, the concentrate ration was increased. The steers *(Turn to page 670)*

The author is associate director of the agricultural experiment station, University of Nebraska.

YOUR MILKING MACHINE must be handled properly in order to do the job you expect it to do. In most cases faulty operation of the machine can be traced to person doing the milking.

Are You Getting

You use it more than any other machine. You must know something about milk secretion as well as how to care for the machine.

by Anthony Coletti

Dairy Farm Supt., Iowa State College

OF ALL the labor-saving devices now in use on our farms, the milking machine comes nearest to being the so-called "indispensable man." Its work is not periodic or seasonal, but must be dependable 365 days out of every year. For that reason a knowledge of how it works and how to keep it in top condition is both desirable and necessary.

Mechanical trouble, wearing out of parts, dirtiness, and faulty operation may result not only in loss of milk production, but may also cause injury to the cows' teats and udder. Regardless of whether the equipment is in good condition or not, proper operation is of paramount importance, of course.

There are many things that affect the efficiency of a milking machine. Some of these are of a highly technical nature and, there may also be considerable differences involving different makes and models.

In most cases it is important, therefore, that the installing and servicing of mechanical milkers be left to their respective dealers and service personnel. However, there are many things that the average dairyman or farmer can learn

HARD MILKERS, may require a slight downward pressure on the claws of the machine to get all the milk. This is important if there is a tendency for the teat cups to crawl.

RINSE WITH COLD WATER, immediately after milking, all parts having had contact with milk. This does 98 per cent of the cleaning job. This is the first step in cleaning milker.

SCRUB OR BRUSH all parts with a detergent and hot water. After a thorough cleaning job, sanitize by using hot water, steam, or chemical solutions, depending on what you may have.

The MOST From Your MILKING MACHINE?

about the care and operation of the machine he is using. In fact, there are certain general instructions and knowledge that can readily be applied to nearly all makes and models.

Difference between hand and machine milking . . .

Contrary to what many believe, a milking machine does not force or squeeze the milk out of the teat as in hand milking. By applying vacuum to the end of the teat, milk is withdrawn in much the same manner as the natural withdrawal of milk by a nursing calf. However, a nursing calf seldom causes injuries to the teats or udder, even though it may apply higher vacuum to the teat than the machine.

This is probably due to the fact that a calf usually does an excellent job of massaging the teats and udder which stimulates milk let-down and reduces the lymph fluid or "cake." Furthermore, the calf stops sucking when a teat is dry. In replacing a hand milker a machine must, therefore, be able to do four things; milk clean, milk reasonably fast, be stopped when the udder is dry, and promote teat and udder health. Failure to do any one of these things should be cause for immediate concern on the part of the herd owner.

How a machine milks . . .

Assuming that we have a machine properly installed and in good working condition, then the working parts that do the actual job of milking are relatively simple. First, we need a rubber liner by which vacuum can be applied to the teat and carry the milk away. Second, we need something to make the rubber liner work, that is, collapse against the teat and then pull away.

To accomplish this, the rubber liner is fitted into a metal shell equipped with a small metal tube near the bottom of which a small air hose can be attached. When we turn the milker on, two things happen:

1. Continuous vacuum or suction is applied to the **inside** of the rubber liner. This causes the liner to collapse and squeeze the teat. However, this action does not draw milk.

2. At regular intervals the pulsator causes vacuum to be applied to the small air hose attached to the side of the metal shell. When this happens, the liner pulls away from the teat and there is an instantaneous increase (for ¼ to ½ second) of the vacuum supplied which increases the internal pressure within the mammary gland forcing milk out through the parted streak canal.

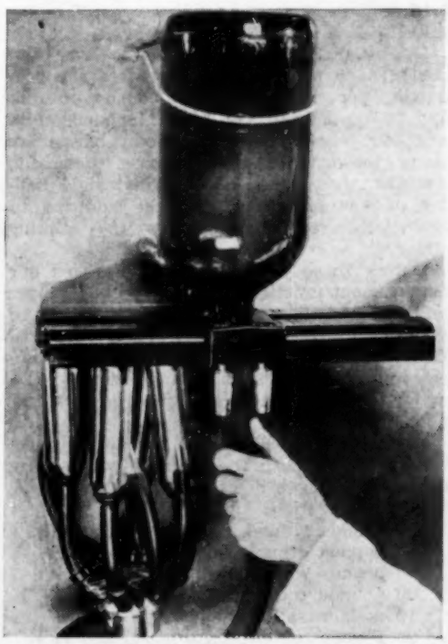
When the pulsator cuts off the vacuum, the liner again collapses against the teat due to the rushing in of atmospheric air. The ease and rapidity with which these changes can take place determine the amount of "snap" or "action" a milker has, a point that may be of more importance than we realize.

In order to provide vigorous massaging action and promote good blood circulation, the action of liners on the teats must be quick and snappy. Also, the collapse of the liner on the teats must be complete in order that relief from vacuum can take place and thus allow blood circulation.

Pulsator speed important . . .

Since the speed of the pulsator governs the rate at which the liners operate, it is important that users of mechanical milkers follow rather closely the recommendations of the manufacturer. This is especially important on machines where the rate of pulsation can be regulated by a setscrew or other regulating mechanism. Speeding up the rate of the pulsator does not always mean faster milking. In fact, the opposite is usually true.

THE LINERS require special attention. Discard when they become checked on the inside, for they not only do a poor job of milking, but actually are a source of contamination.



SOLUTION RACK may be used for liners. Dissolve 13-ounce can of lye in a gallon of water. Three-fourths cup of this solution added to a gallon of water makes the proper solution.

However, under certain conditions a skillful operator might find it advantageous to change the rate of pulsation. For instance, in the case of a hard milking cow, a slower rate will speed up the milking time. New heifers, on the other hand, may be less likely to kick off the teat cups if the rate of pulsation is slightly faster than normal.

For most operators the wise thing to do would be to keep the pulsators operating at the recommended level. Cows are creatures of habit and constant changing is not conducive to good milk production.

Sluggish or irregular rate of pulsation usually indicates the need of cleaning or other attention. On machines with built-in timing a change in rate is usually the result of a worn or slipping belt. Obviously this would also affect the amount of vacuum produced by the pump. Pulsators should also be checked periodically for excessive wear and plugged air holes, both of which could seriously affect the usefulness of the milker.

How much vacuum? . . .

Opinions vary as to how much vacuum can safely be applied to the end of a cow's teat by a mechanical milker. A maximum of 15 inches of vacuum, however, is probably the safe upper limit. A lot also depends upon the man doing the milking. Even 10 or 12 inches of vacuum might cause trouble if good milking procedure is not followed. This, of course, means preparation of the cow, removing the teat cups as quickly as possible, and proper sanitary precautions.

A periodic checking of the vacuum gauge, cleaning the vacuum line, and vacuum control mechanism will do much to keep the vacuum at the proper level.

How long to milk a cow? . . .

We all agree that usually the quicker a cow can be milked the better the chances are of maintaining a healthy udder and keeping production at a high level. We also know that proper preparation or stimulation before milking is essential, whether it's the washing of the udder, massaging the teats, etc.

To some extent cows, and especially heifers, can be trained to milk out rapidly. Therefore, under proper conditions most cows can be milked in three to five minutes. An average time of four to five minutes might not be considered excessive.

Allowances, however, should always be made for individual variation. Many cows will milk out completely in less than three minutes. Yet a perfectly normal cow having strong teat sphincters and producing 40 to 60 pounds of milk daily, might require five to eight minutes for complete milking. The same could be true for cows with abnormal udder structure. Any attempt to train such a cow to milk out in three minutes usually fails and sometimes results in at least temporary loss in production.

Is hand stripping necessary? . . .

No hand stripping should be necessary on machine milked cows. Exceptions to this would be extremely hard milkers and cows with teat injuries or malformed mammary gland structure. Otherwise, a slight downward pressure applied to the claws will usually get all the milk. Care should *(Turn to page 671)*

MR. AND MRS. JOHN TUFTS and their two children enjoying the comforts of a modern home. They can enjoy a high standard of living due to their high-producing herd and their well planned grassland program.

THE HOLSTEIN HERD grazing on pasture about the middle of November. A twelve-month's pasture program is carried on; during hot summer weather, the cattle do their grazing at night.

The following report was prepared at the request of the editors after a staff member visited the Tufts farm near Dallas, Texas, early last winter. Truly, this is an unusual story; yet the tools available to John Tufts are available to almost everyone. It is a thorough application of common knowledge that has made this a story worth reporting in the words of the man who did the work.—THE EDITORS.

This Texan Developed a Dairy Herd

A reader tells how he built a dairy herd of 135 since 1946. They average 9,914 pounds milk and 460 pounds fat.

by John F. Tufts

It is a bit embarrassing to record in print our experience in developing a dairy herd. We do not wish to give the impression that we have done everything correctly. Far from it! We have made mistakes and perhaps will make many more.

Our good fortune in developing a fairly high producing herd is not due to any particular clairvoyance on our part. We have simply applied as intensively as possible some simple, proven herd and farm management practices that are known to everyone.

The editors of Hoard's Dairyman believe that a report of our experiences might be of interest to others. If this article can serve a good function in this respect, we are only too happy to cooperate.

As the third generation of the Tufts family, I am operating in partnership with my father a 342-acre farm which has been in the family since 1897. You can see I am not doing this job alone, although the main responsibility is mine.

During the years my father operated this farm, from 1919 to 1948, we kept hogs, sheep, poultry, and dairy cows. We also sold cream and fed the skim milk to the hogs that were being fed out. Between 500 and 1,000 feeder lambs were raised on our small grains and clover. My brother and I grew up working at all of these jobs but the dairy cow was my favorite then and still is.

Upon my return to the farm, in 1946, I found that, due to the labor shortage, my father had started using a Hereford bull on our Jersey herd. At that time, the herd numbered 17 cows.

In January of 1947 the North Texas Artificial Breeding Farm began operating in our county. I decided then to build a dairy herd, using artificial breeding, knowing that here was a chance to use bulls that otherwise I would never have access to.

Later, in 1950, a dairy herd improvement association was organized and our herd was placed on test in 1951.

In April of that same year I purchased 10 Holsteins and later in the fall purchased 6 more Holsteins and 6 Jerseys. Twelve more cows were purchased in 1952. During this period, however, and this is very important, we culled 27 cows because of low production. Since that time we have not purchased a milking animal.

Our plan, frankly, is to raise all of our own replacements in the future. Every artificial heifer born on our farm has been raised. The present herd numbers 69 milking cows, 19 bred heifers, 21 yearling heifers, and 26 heifer calves.

During the three years that we have had our herd on test, we have increased the production per cow from 7,598 pounds of milk and 323 pounds of fat to 9,914 pounds milk and 460 pounds fat. Undoubtedly, there are many reasons for this increase. Basically, however, we credit DHIA testing, rigid culling of low producers, and the addition of artificially-sired daughters to the milking string.

During these years we have improved our management practices. Careful feeding, proper milking, and disease control have all played their part. Significantly, however, the artificial daughters of our old cows are still improving and outproducing their dams. So, a major portion of the credit must go to better breeding.

Some of you readers will probably suspect that we really push the grain to our milking herd. Frankly, we don't exactly starve them. Here is our ration: (we mix it)

400 pounds ground oats (coarse ground).
200 pounds ground ear corn.
200 pounds wheat bran.
200 pounds cottonseed meal.
15 pounds salt.
25 pounds commercial mineral and vitamins.
100 pounds molasses.

This ration is fed at the rate of one pound of concentrate for every five pounds of milk.

Turning to another phase of herd management, we do try our best to keep all diseases in check. Mastitis is kept fairly well under control by careful and thorough milking with clean machines, a clean milking procedure, and the use of a strip cup and immediate treatment.

We have had no brucellosis in our herd but we do calfhood vaccinate regularly and immediately test any animal that aborts. Our state laws discourage regular testing; otherwise, we would be testing more frequently.

With nonbreeders our main problem has been one of cystic ovaries. They are treated as soon as recognized but in all cases we leave our cows open 60 days and not more than 90 days before they are rebred.

Acetonemia has not been a matter of concern to us during the past three years. I can't say the same for foot rot, however. We have been systematically cleaning up all of our muddy places; in fact, we just finished pouring concrete slabs around our feeding bunks. We believe this will help control what foot rot we do experience.

Turning to calf raising, for the moment, we have had no trouble with the exception of one siege of white scours. It has been brought under control by using terramycin at birth. Admittedly, we used to have many problems in keeping our calves alive and healthy. Now, however, we have things well under control. We watch them carefully, and give them the best of care.

Now let's turn to the important part of our feeding program; pasture, hay, and silage. Since we have grown clover alone and in combination with small grains for the past 25 years, our land is loose and easy to prepare. No deep plowing is ever done. We use only a disk harrow. Some of the land is plowed, however, with a Graham-Hoeme plow which serves as a subsoiler. We usually lay off our land with a section harrow, which levels the land. *(Turn to page 665)*

TREATING POSTS with hot and cold bath method using coal tar creosote oil. Note opening to fire box and chimney are at quite a distance from drum, since it must be remembered oily materials are inflammable.

FREE FROM ROT after twelve years in the ground. Was treated green with chromated zinc chloride.

UNTREATED POST after twelve years in ground. Note that only the heartwood is supporting post.

TRIPLE Life of Fence Posts

With an oil soluble preservative and a home-made treating plant, you can triple the useful life of your fence posts.

by Wallace E. White

IN ATTEMPTING to reduce the initial expense of installing a fence, the matter of durability, or the ability of the fence to give years of trouble free service may be overlooked. The actual cost of the fence must be determined on a cost per year basis, to have real meaning. Thus the durability of the posts used in constructing the fence largely determines the annual cost of fence maintenance.

A number of factors enter into this annual cost of fence maintenance. Some of these factors are:

1. Cost of fence post replacement, including (a) initial cost of post, (b) transportation and setting of posts, and (c) durability or frequency of replacement of posts.
2. Availability of suitable woods, either naturally durable or pressure treated with suitable materials.
3. Utilization of farm grown and home treated fence posts, especially those secured from farm woodland improvement operations.

The Forest Products Laboratory of the United States Department of Agriculture and many state agricultural experiment stations including that at the Pennsylvania State College are conducting research on the durability of fence posts from many species of wood.

The heartwood of some native species, especially the red cedars, osage orange, black locust, and mulberry, is naturally durable and can be expected to give satisfactory service for 20 years or more in Pennsylvania. Less durable woods, including the white cedars and white oaks will probably last longer than 10 years under Pennsylvania conditions.

The sapwood of all species and the heartwood of most other woods will rot in a very few years under normal fence post conditions unless treated. In recent years, posts pressure treated with coal tar creosote have been available at retail lumber yards and treating plants. If these posts meet the standard specifications of the American Wood Preservers Association, they can be expected to last at least 30 years. Although the initial cost may seem high, the additional years of service will bring the annual cost per post to a very moderate figure.

Posts treated by other methods comparable in cost to creosoted posts may be obtained from some dealers. These methods include pressure applied pentachlorphenol, copper naphthenate, chromated zinc chloride, and diffusion processes such as Osmose salts. The useful life of posts treated with these materials has not been fully determined but excellent results are expected.

Use home grown posts . . .

If neither naturally durable nor commercially treated woods are available in your community at a reasonable cost and if your farm woodland has a supply of treatable wood suitable for fence posts, it is possible to set up a small home treating plant at low expense. A number of preservatives are available which can be applied with non-pressure processes adaptable to small scale operations. Two general categories of preservatives include (1) oily or oil soluble preservatives such as coal tar creosote oil, pentachlorphenol and copper naphthenate, and (2) water borne preservatives such as mercuric chloride (corrosive sublimate), copper sulphate (blue vitriol), plain or chromated zinc chloride, and Osmose salts.

Creosote oil is a heavy, viscous substance at ordinary temperatures and should be applied by the hot and cold bath method. Briefly, carefully peeled and thoroughly seasoned posts are submerged in a suitable tank of creosote oil 212 degrees to 220 degrees F. for a period of four to six hours, and then cooled, either in the same tank or transferred to a similar tank of cool but not cold creosote. Posts are then removed and the excess creosote drained back into the tank. Care must be exercised in heating because creosote is inflammable.

Posts treated with creosote in this manner should last 20 years or longer. Peeled and seasoned posts may be treated with oil solutions of pentachlorphenol or copper naphthenate. These materials may be purchased ready to apply or in various concentrations to be diluted before use with a solvent oil such as kerosene, fuel oil or Stoddards solvent.

The manufacturer's directions should be followed to obtain the appropriate concentration of toxic material. Posts properly treated with these substances should last 20 years or more.

Creosoted posts and posts freshly treated with pentachlorphenol or copper naphthenate should be kept away from vegetation such as in greenhouses, cold frames, and nursery beds.

Follow precautions . . .

Never use waste crankcase or transmission oil or other lubricating oils or greases to dilute preservatives. There is some evidence that X-disease or bovine hyperkeratosis may result from certain chlorinated hydrocarbons used in the manufacture of some lubricants. Also remember that oily materials are inflammable and they should be used and stored where they will not cause a fire.

Among the water-borne preservatives, mercuric chloride and copper sulphate are corrosive to metals and must be applied in wooden tubs or containers. Metal staples and wire fence may be destroyed in a short time. Some users of copper sulphate report that the damage from corrosion may be minimized by leaving the bark on the posts.

These salts are very soluble in water, and if posts treated with them are set in wet places, the salts are soon leached from the posts and the wood is left unprotected. Osmose salts are less soluble and are usually applied in water suspension. A period of one to three months in a closely piled stack covered with weather resistant paper is recommended to allow the salts to diffuse into the wood. Posts to be treated with this method must be peeled but are usually green.

When set in average to dry soils leaching of toxic salts is slow and the useful life of the post will usually be two or three times that of untreated wood of the same species.

Further information on fence post treating may be secured from your county agent, your state agricultural college or from the United States Department of Agriculture—Farmers Bulletin No. 2049. **THE END**

Dr. Wallace E. White, author of this article, is Professor of Wood Technology at Pennsylvania State College.

NO BUILD-UP OF IMMUNITY WHEN YOU USE PYRENONE*

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An easy, economical way to control flies is to use Pyrenone sprays in the automatic spray unit developed by the Illinois Natural History Survey.

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ARTIFICIAL BREEDING

Why We Have Disease-Free Sires

by H. A. Herman

THE use of healthy sires by artificial breeding organizations helps reduce diseases spread by contact involved in natural breeding. Included among the so-called venereal diseases are trichomoniasis, Vibrio foetus, granular vaginitis, leptospirosis, and brucellosis.

If the spread of these diseases is not controlled, artificial breeding organizations are well aware of the dangers involved. They make every effort, therefore, to have each sire painstakingly examined by a competent veterinarian before purchase. Routine check-ups follow.

Every sire must pass rigid health tests before his semen is shipped. This policy plus semen treatment is doing a great deal to break the link in the transmission of diseases that lower fertility, result in long dry periods and loss of profit, and, in many cases, cause total sterility.

The steps taken to control some of these diseases are, as follows:

Brucellosis . . .

Every sire must pass two or more negative blood tests before he is selected. In addition to a negative blood serum test, the bull must pass a negative test on his semen plasma. After the bull is admitted to the stud and placed in use, blood and semen tests are usually conducted every six months.

It rarely happens, but evidence collected in this country as well as in Europe indicates that a bull may transmit brucellosis through his semen.

Trichomonads . . .

By sexual contact this disease may be easily spread from the bull to the cow, or vice versa. By selecting only trichomonad-free bulls artificial breeding has done much to reduce its spread. This is not an easy task and the required clinical examinations are expensive.

First of all, the herd in which the bull has been used must be carefully examined to make sure it is free of trichomoniasis. In this connection the breeding records are carefully examined. The herd which has a number of cows returning for service, after skipping two or more heat periods following the last breeding, is strongly suggestive of this type of infection.

After being selected from a clean herd, the bull, before being placed in use, should pass at least five or six subsequent tests for freedom from trichomoniasis. Thereafter he is routinely examined at six-month periods.

If a bull is found to be infected, and he is valuable enough to undergo treatment and a long waiting period, he is isolated promptly and treatment is begun. Before semen is shipped after the treatment is ended, the bull should pass eight to ten clean tests made at weekly intervals. Treatments now in use have been found capable of restoring to service about four out of five infected bulls.

Vibrio foetus . . .

Before it is used, the treatment of semen with antibiotics (streptomycin alone, or streptomycin and penicillin in combination) has been found to be important in controlling Vibrio foetus.

Clinical examination of cows and bulls to detect this infection is not yet available for routine use. Likewise, satisfactory treatment of infected animals has not been fully perfected. Therefore, to prevent the transmission of this disease we are highly dependent upon treatment of the semen.

After its addition it requires from four to six hours for streptomycin to combat effectively Vibrio organisms. Therefore, semen to be used in artificial insemination should have the antibiotics added before the semen and extenders are cooled. After cooling, the extended semen should be held for at least six hours before it is used.

Granular vaginitis . . .

Bulls should be selected from herds free of vaginitis. Apparently vaginitis is not spread by artificial insemination. It is also possible the antibiotics used in semen extenders reduce its spread.

Tuberculosis . . .

All bulls should be TB free and tested at least annually.

General care and sanitation . . .

Breeding associations constantly guard against the introduction of infectious diseases onto the premises. "Dummy" cows or animals used in the collection of semen must undergo the same rigid health tests as the sires.

It is possible to transmit infection from sire to sire, not only by contact in the barn and exercise lot, but through the use of the artificial vagina if it is not sterilized properly.

Many associations are using a complete separate artificial vagina for every bull. All associations make it a practice to use a separate liner and funnel. Many of them require the personnel collecting the semen to wash and sterilize their hands between sire collections.

These health control measures create confidence on the part of the bull stud personnel, the technicians, the dairy farmer, and the public in general. They are a vital part of the program and can do much to safeguard the genital health of nearly five million cows enrolled in the artificial breeding program.

This Texan Developed a Dairy Herd

(Continued from page 662)

A combination of 2 bushels of oats and 10 pounds of button clover is sown at one time. With it we sow another mixture of 20 pounds of Balbo rye and 15 pounds of Italian rye grass. These mixtures are sown with a grain drill, sowing one mixture at a time. One mixture is sown running the drill crosswise in order to get a more uniform stand.

The oats and button clover furnish early and late grazing. The Italian rye grass and Balbo rye furnish winter and some late grazing.

This same field is oversown about the middle of February with 15 pounds of Madrid clover. It furnishes early and late summer pasture. Madrid clover is used the second year for pasture, hay, and silage. We seldom have to reseed these fields to clover because it comes up voluntarily.

For night pastures we turn out the herd on our permanent pastures, composed of the Bermuda, Dallis, and buffalo grasses, and pasture clovers, such as Black medic, button, and bur. These permanent pastures are oversown in the early fall with Italian rye grass.

We use a rotation of permanent and temporary pastures, following the milking herd with the dry cows. Pastures are changed when the cows fail to fill up in the required time.

In winter we do not graze at night but let the cows fill up on pasture during the day. Silage is fed after the night milking.

In summer they are put out to pasture at night. During the day, in the shade, they are fed silage, freshly chopped corn, or hegari.

We figure one cow to two acres, as an average, over a nine months grazing season.

We try to keep something growing on our land at all times. A cover crop (small grain and hairy vetch) is used on our corn land. We have very little water erosion. We put all the manure we possibly can on the land where it will do the most good.

We depend quite heavily on both grass and corn silage, using a trench and an upright silo.

For harvesting grass silage a direct cutting attachment is used on the field chopper and the crop is taken directly to the trench silo with dump trucks.

A tractor is kept in the pit with a front-end loader and blade. This is used to level off the silage after it has been dumped into the pit The tractor wheels are weighted heavily and the front wheels are spread to keep the tractor from becoming bogged down. The tractor is kept going back and forth all day for we believe that packing is one of the most important things to insure a good quality of grass silage.

When the silo is full we keep the top of it wet and keep packing it with the tractor. Then it is covered with three inches of dry straw, which is wet down and packed with the tractor. After this is done, it is covered with not less than four inches of dirt. We have no spoilage using this method. It does take more time and labor.

Our upright silo is used for corn silage. This is used for feed when the weather is too bad to get the grass silage out of the trench silo.

If we don't have any pasture, both grass and corn silages are fed. Corn silage is normally rationed at from 30 to 35 pounds per day but we feed all the grass silage that the cows will eat.

We also keep grass hay before the cows at all times. When no pasture is available up to 15 pounds of alfalfa hay a day is fed.

At the present time, we have 190 acres of a mixture which includes Mustang oats, Balbo rye, Italian rye grass, Madrid clover, vetch, and button clover.

Our permanent pasture, of 100 acres, includes Bermuda, buffalo and fescue grasses, button clover, Dallis grass, and bur clover overseeded in the fall with Italian rye grass.

The same legume mixture used for silage is used for grazing. We cut our grain nurse crop in the dough stage or heavy milk stage for silage. This legume mixture is then grazed in the fall and winter. The cows are taken off around the 15th of March and then we let it grow up for silage.

One trench silo, incidentally, holds from 500 to 600 tons of silage. The other will hold around 250 tons. We like to keep them both full as a reserve in case there is a dry year.

Keeps bacteria count down . . .

Someone will undoubtedly ask how we make out on quality milk. Since we started selling Grade A milk, in September 1950, our bacteria count has averaged 4,000. Our dairy barn and milk house are inspected once a month.

Naturally, our loafing barns are kept well-bedded; udders are clipped; milk is cooled immediately, and cows' udders and teats are disinfected before milking.

All of our milking equipment is cleaned immediately after we are through milking. We follow a policy of producing only milk that we would drink ourselves. If it is not fit for our use, we will not sell it.

Now to price, and I expect more people are interested in this particular point than anything else. Our milk is sold as Grade A fluid milk in the Dallas market. During the past three years milk of 4 per cent test has been priced, as follows:

1951	$6.05
1952	6.35
1953	5.70

Admittedly, these prices are a lot better than those received in other sections of the country. Our market is rapidly becoming satisfied, however, and this wide discrepancy in price undoubtedly will pass from the scene before too many years roll by.

In the meantime, we are not going to be the least bit discouraged by any leveling out of the price. Our goal in dairying is to develop a herd of 75 good cows. We have set as our goal 13,500 pounds of milk and 600 pounds of fat per cow as a herd average. We do hope to grow into purebred cattle someday.

The future of dairying, obviously, is highly competitive. To stay in business and make a good livelihood for our families it will be necessary to produce a high volume of milk per hour of labor and to do so at the lowest possible cost consistent with good dairy management. We believe we are competitive now, and we intend to become more competitive, more efficient, in the months and years ahead. We look to the future with optimism and confidence. **THE END**

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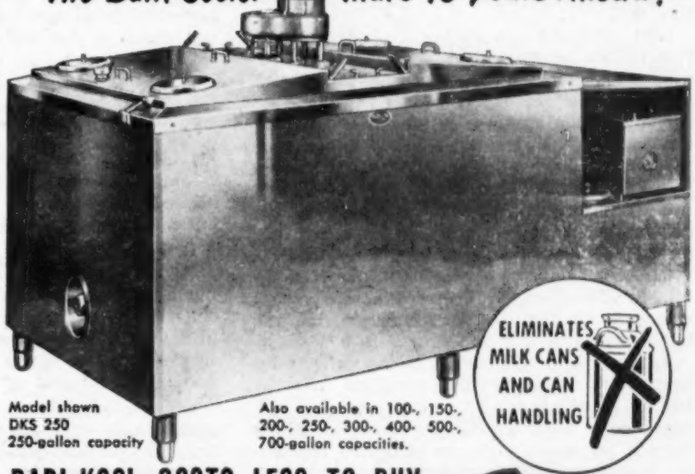

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Model shown DKS 250 250-gallon capacity

Also available in 100-, 150-, 200-, 250-, 300-, 400- 500-, 700-gallon capacities.

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EDITORIAL COMMENT

BACKING INTO DIRECT PAYMENTS

MENTION the Brannan Plan or direct payments in a farm meeting and it is virtually assured that hackles will rise. Opponents and proponents are equally vigorous in their opposition or support.

Strange as it may seem, many of the most vigorous opponents of direct payments are playing right into the hands of those favoring direct payments. By following their programs and policies, the dairy industry is being jockeyed into a position where direct payments may, and probably will, be the only way out.

Lest someone question our logic, let us look at the record:

1. Most of the opponents have offered nothing better for dairying than flexible price supports under the Agricultural Act of 1949. Under them, whether at 75 or 90 per cent of parity, dairy surpluses continue to mountain up in government hands.

2. The most influential general farm organization has successfully opposed any domestic surplus disposal program.

3. As a gleam of hope, the Martin-Herlong bill is offered as a diverted acres control measure. Firsthand reports indicate that the bill will not pass.

4. The result of the foregoing is that we keep on in the same ruinous old rut that has led us to where we are today. As day succeeds day, however, the feasibility of direct farmer payments and low prices to consumers becomes the only program that will work short of a complete market collapse.

If direct payments or the Brannan Plan does come to dairying, credit must go to the opponents who have failed to come up with, or have failed to support, something better.

It will be interesting to see how the agricultural historian will record this paradox of prevailing influence and contrary results.

EFFECT OF HIGHER INDEMNITIES

CONGRESS is currently considering a big boost in indemnity payments for brucellosis (Bang's disease) reactors. The House Committee on Agriculture would authorize the Secretary of Agriculture to transfer up to $15 million from the Commodity Credit Corporation.

If this action is supported by the House and the Senate, the Department of Agriculture will have over 20 times as much indemnity money as it had last year. Why the boost in funds at this time?

It is the belief of some legislators that an increase in indemnities will encourage dairy farmers to sell their reactors. This, they contend, will result in less milk, and our surplus problem will be materially reduced.

The principle here is an old one, 30 years old, to be exact. In 1934, the government tried a cattle reduction program to reduce surpluses. A look at the record will show that cattle numbers may have been reduced somewhat but milk production was not materially affected. These results are not surprising.

Anyone with experience in dairy farming knows that reactors removed because of tuberculosis or brucellosis (Bang's disease) are quickly replaced in the milking string. Almost every farm has springing heifers waiting in line for a place in the milking line. Many legislators and some farm leaders seem to forget that. Culling is a continuing process as better replacements come along.

The net effect of subsidized culling is that the government will pay the farmer for doing something that he would be doing anyway in the normal course of his operations.

It is true that the incidence of brucellosis may be greatly reduced. For this we can all be thankful. Realistically, however, the increased indemnity money should not be expected to help close the great supply-demand gap which is our prime dairy problem.

PRICE CUTTING

MILK distributors who launch into price cutting or price wars are condemned and blessed. Lower prices at retail are welcomed, but lower prices to the farmer are not.

It seems to us that there should always be pressure to keep the processing and distributing margin as low and as reasonable as possible. To this extent, there should be normal pressures in the market at all times. This is in the interest of the health of the industry and in the interest of public good.

On the other hand, however, severe price cutting and price wars are normally initiated for the purpose of gaining temporary advantage in a market wherein the price cutter hopes to retain some of his initial advantage after the war is over.

This type of activity does not serve the best interest of the farmer and not necessarily of the consumer. It raises suspicions in the mind of the consumer that milk is normally priced too high, thereby creating an undercurrent of resentment against normal dairy prices. This hurts the farmer as well as the distributor. Further, of course, if a price war continues for very long, the farmer suffers heavily through lower prices at the farm.

As farmers, we should encourage active competition which brings about maximum efficiencies in processing and marketing; we should oppose monopolies, artificial restrictions on sales, and all other handicaps to the rapid, low-cost flow of milk from the farm to the consumer. Beyond this level, competition which results in artificially low prices is not in our best interest.

In 1906, W. D. Hoard said:

Sometimes a few people may feel that they do not need help from anyone, while others may feel that they are of too little consequence to receive notice, but when a great calamity comes, the independent man finds himself quite as much in need as the most humble citizen, and the whole country stands ready to help all classes of persons, regardless of wealth or social standing. This is true Americanism and we should feel proud that this spirit pervades every part of our land, for, after all is said and done—

"'Tis only noble to be good;
Kind hearts are more than coronets."

HEALTH EFFORT MERITS SUPPORT

IT HAS long been our opinion that dairy farmers and their organizations should exert greater influence in livestock health matters. We do not desire this because of lack of confidence in current leadership, but because the full weight of the industry behind sound research and control programs could accomplish more than we accomplish at present.

During recent months, we have followed articles and editorials in British farm magazines discussing the Animal Health Trust of Great Britain. Apparently, this is an independent farmer- and industry-supported agency dedicated to the maintenance and improvement of Britain's livestock health.

Although thousands of farmers support the trust, considerable effort must be made to secure the funds needed for the work. Nominal pledges are requested over a five-year period.

We are in no position to judge the prospects for success of the British organization. Obviously, however, it commands a substantial following and, because it is a voluntary, farmer-supported agency, those people participating are better informed and more livestock-health conscious.

In this country, we have a somewhat similar organization in Livestock Conservation, Inc. It is the result of the merging of the Livestock Sanitary Committee and the Livestock Loss Prevention Board. The potentialities of this organization are great. Valuable work is being done at present. Unfortunately, the great mass of financial support must come from industrial sources rather than farm sources, although farmers profit more from the work of Livestock Conservation than any other group.

It has been difficult for us to understand why so many of our dairy and general farm organizations tend to limit their scope of activity to one particular function. The result has been that we are grossly overorganized in many dairy regions.

Every time some new dairy problem arises, it appears necessary to launch a new organization to handle this specific problem. We cannot find fault with the launching of the new organizations because, oftentimes, they are created from necessity. Existing dairy organizations show little, or no, interest in these new problems as they develop. They appear to be beyond the historic functions of the existing body.

Insofar as livestock health is concerned, we believe that all dairy farmer, livestock, and general farm organizations should show an active interest in livestock health problems and programs. Lip service or token resolutions are not enough. There should be active participation. When we realize that our dairy cattle health losses each year exceed our entire net income from the sale of dairy products, the important role of livestock conservation is obvious. No other reason need be given for farm groups to justify their support of livestock health programs.

The land is the only living thing. Men are mortal. The land is a mother that never dies.
—Polynesian Saying.

Jersey Breeders Elect D. T. Simons

Former fieldman named president of the American Jersey Cattle Club at 86th annual meeting of the association, held in Springfield, Massachusetts.

MR. AND MRS. D. T. SIMONS

NEARLY 300 Jersey breeders and friends enjoyed New England hospitality at their 86th annual meeting held in Springfield, Massachusetts early last month. The host committee provided an interesting and enjoyable program, including a type classification demonstration at Folly Farm, a farm visit and barbecue at the John Sibley farm, sight-seeing trips, luncheons, and banquets.

Open Forum day was devoted to a panel discussion on milk. It was rather forcibly brought out that The American Jersey Cattle Club needs and wants a national milk program that will provide all types of Jersey milk from skim milk to a premium milk testing 5 per cent or more in many of the leading markets. Considerable interest was shown in the All-Jersey program that has been in effect on the West Coast.

The annual meeting itself was typical of many held by Jersey breeders. Other than hearing the reports of the president and secretary, electing a new president and four new directors, no important business was transacted. Considerable time was taken by the well known A. Lewis Oswald, Kansas, who "needles" those who "run" the club's affairs. The worst time-consumer, however, was settling on the manner in which the president would be elected. Unfortunately, President Astroth originally stated it would take a substantial plurality, "such as 100," to elect a president, when apparently the legal counsel for the club had previously ruled any plurality would win. After much discussion, several motions, etc., the ruling of the legal counsel was followed.

D. T. Simons of Texas received 770 votes, followed by M. N. Tibbles, Oregon, with 554 and H. G. Wilde, Massachusetts, 380. Less than 300 were present at the meeting, but there were some 1,700 proxies in the hands of those present.

D. T. Simons, 73, has bred Jersey cattle since 1908, when he and Mrs. Simons began farming on their Texas farm where they still live. Their herd numbers some 100 head that are on continuous HIR test and are regularly classified. "D.T." was president of the Texas Jersey Cattle Club 1919 to 1921. From 1922 to 1952 he served as field representative for The American Jersey Cattle Club. He succeeds Frank B. Astroth, Minnesota, the club's president the past three years.

Other new directors elected include: E. Lea Marsh, Conn., who defeated Curtis M. Brown, Mich., to succeed W. E. Weaver, Ind., as director at large; John Stiles, Md., who succeeds T. T. Curtis, Va., as director of the second district; Joseph J. Elcan, Ark., who defeated James E. Berry, Kan., to succeed Paul Harber, Okla., as director of the sixth district; and Edgar S. Smoot, Utah, who succeeds Floyd E. Bates, Ore., as director of the ninth district.

Dale Dean Master Breeder . . .

The Master Breeder Award was made to Dale Dean, managing partner of Meadowridge Jerseys, Incorporated, Mich. The award was presented to "the living member of the American Jersey Cattle Club who, in the opinion of the Board of Directors, has bred outstanding animals for many years and thereby made a notable contribution to the advancement of the Jersey breed in the United States".

Dean has worked with Jerseys all his life. Under his guidance 22 Tested Dams, 9 Superior Sires, and 7 Senior Superior Sires have been developed. Meadowridge Jerseys received six Gold Star herd awards. Dale is a well known Jersey judge, having been associate judge at the last two National Jersey shows. He will judge the 1954 National Jersey show at Chicago.

Trout—Distinguished Service . . .

The Distinguished Service Award Certificate was created by the Board of Directors to recognize a "living member of the American Jersey Cattle Club who, in the opinion of the Board of Directors, has rendered outstanding and unselfish service for many years and thereby made a notable contribution to the advancement of the Jersey breed in the United States." The first award goes to W. W. Trout, Ohio.

For many years Mr. Trout managed the Borden plant in Springfield, Ohio. He established his own Jersey herd in 1924; his herd was among the first to participate in the HIR and type classification programs.

He has served as a director of The American Jersey Cattle Club two three-year terms and was particularly active in the relocation of the club's headquarters in Columbus. It was his responsibility to plan and supervise the construction of the new home office building of the club.

The figures shown in the table are taken from the secretary's annual report to show a comparison of this year's business with that of 1952-53:

The President's Trophy winner was June Volunteer Fantasy, owned by Mr. and Mrs. John Lindow, Ore., for her national butterfat champion record of 20,097 pounds milk and 1,319 pounds butterfat in Class AA. Winner of the living lifetime butterfat champion certificate was Silken Gem of F., owned by the Estate of J. W. Coppini, Calif., having 8,447 pounds butterfat and 136,976 pounds milk, all made on twice-daily milking.

	1952	1953	+ or −
Cow registrations	77,370*	64,072	−
Bull registrations	8,236	7,044	−
Total registrations	85,606	71,116	−
Registrations from artificial breeding	19,261	17,921	−
% of total from artificial breeding	22.5	25.2	+
Cow transfers	36,126	34,133	−
Bull transfers	5,428	5,047	−
Total transfers	41,554	39,180	−
New buyers	9,444	9,852	+
New members	211	120	−
Total membership	3,980	4,033	+
Herds on HIR	1,089	1,034	−
Cows on HIR	30,788	32,404	+
Pounds milk per cow	7,188	7,175	−
Pounds butterfat per cow	383	383	0
Cows classified	17,388	33,408**	+

*A moratorium was declared in 1952.

**The figures for 1953 include all the classified animals in herds classified during the year, including those inspected but not raised.

ED . . . and EMMA

"I'll just hold my glasses like this. Light might reflect off'n them . . ."

". . . Farm magazine wants his picture . . . and he just saw Ike's official photo!"

"Perky" on Milk Diet

When Dr. D. L. Gibson, head of the University of Saskatchewan's dairy science department, told his students that milk was an almost perfect food they scoffed at him. To prove his point, he accepted 25 cents from each of his students to help finance a personal experiment.

Beginning March 15, he went on a diet of three quarts of milk and four ounces of orange juice daily. He also took one iron tablet every five days.

According to an Associated Press report, Dr. Gibson, after a 24-day demonstration diet, reported that he hadn't felt so "perky" in years. At the end of the experiment, his physician, Dr. Glen Kinsman, examined him and said that Gibson's health was better than at any time during the eight years he has known him.

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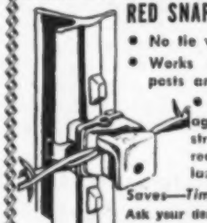

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Circulation Department
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"I Am a Dairy Fieldman"

(Continued from page 657)

had every appearance of having very decided opinions of his own.

His first words were: "So this is the chap who wants to throw you folks head over heels into debt! What is all this folderol about a new barn floor and a milk house just so people can sell milk?

"Let me tell you, sir, my father milked cows in a straw shed. There is entirely too much bunk connected with this Grade A milk fad. Just a scheme to make these poor farmers spend a lot of money so you dairy operators can make a big profit. Furthermore, can you guarantee how long this spread between cream prices and Grade A milk prices will last? If I had my way, sir, a lot of your chiselers would be run off the roads."

When Mr. Fleming finally stopped talking, Carl started to speak but I motioned to him to keep quiet.

I forced myself to keep my voice low as I said, "Mr. Fleming, I have every respect for your business ability and judgment; however, I hope you will grant me a few minutes to defend myself."

He glanced at his watch and I went on. "I am sure your father could, and did, produce some very good milk while milking cows in a straw shed. Milk drawn from a clean, healthy cow with clean hands and utensils is nature's most nearly perfect food.

"It is what we allow to happen to it afterward that determines whether it remains good.

"The first step toward sanitary milk production was taken in New York City in the early 1880's. The wife of a wealthy department store owner, Nathan Krause, had given birth to a child. The baby thrived until it was weaned on to cow's milk, when, in spite of all the doctors could do, it sickened and died.

"The doctors informed him that his child was no different than other infants, and it was only natural that one out of four should die soon after weaning. This explanation did not satisfy Mr. Krause.

"He bought a small dairy farm and gave the operator to understand the milk would be produced according to his directions. The utensils were kept clean and were scalded before each use. The milk was cooled with cold water, and delivered free to families with small infants. Mr. Krause personally kept a record. After two years he found that only one out of 10 babies died after weaning instead of the usual one out of four.

"Armed with these facts Mr. Krause went to the city authorities and tried to get some laws passed governing the production of milk to be sold. He was bitterly opposed by the medical profession, and had to carry his case to the state legislature before he met with any success.

"The milk sanitation program was very slow in spreading across the country. The first ordinance formulated by the U. S. Public Health Service was printed in 1924. This code has been revised periodically to meet changing conditions and knowledge about milk sanitation.

"The ordinance and code was recommended for adoption by states and cities. As a result, the number of milk-borne disease outbreaks has shown a steady decrease during the past 25 years. Infant mortality has been tremendously reduced.

"Not all producers, Mr. Fleming, are as clean and conscientious about handling milk as your father. I have seen milk handled in such a slovenly manner as to turn one against drinking milk.

"To correct this abuse is the purpose of the Grade A program. There is a reason back of every requirement in the code.

"For instance, a loft floor of tight-matched lumber will prevent bacteria-laden dust from sifting down into the milk and onto the cows. A smooth concrete floor can be kept clean, and prevent harmful bacteria being tracked on filth into the milk house.

"An impervious floor in the milk house prevents the accumulation of sour milk on the floor. Adequate light in both the barn and milk house enables the operator to see what he is doing at all times.

Mr. Fleming stood up, offered me his hand, and said, "Thank you, Mr. Jordan, for the information. I shall be glad to present this case to our board. We should have its verdict in about 10 days."

A short time later I found a card on my desk from the Jacobsons. They wanted me to come out. According to my daily log book, it was six days later before I got to see them. They had the approval on their loan application from the production credit association and were quite happy about it. They were anxious to get to work.

Carl had already arranged to exchange some work with a couple of neighbors, and had located a power cement mixer which he could rent. Fortunately, the farm had electric service. Laying the concrete floors for the barn and milk house looked like the biggest undertaking. I advised them to get the loft floor in first so it would be ready for the hay harvest.

Keeping the total cost within the estimate put me somewhat on the spot. There were some native pine lumber mills within trucking distance, and I advised Carl to try to get some matched lumber from this source. It would be at least one-third cheaper than imported lumber.

I left them a standard milk house plan so they could lay out the foundation and pour the concrete at the same time they laid the barn floor.

Ten days later I was working in that area and decided I would see how they were coming. I heard some pounding in the barn and found Carl and Hilda laying the new loft floor. They had it over half in but I nearly had

"You said to drive the cattle up."

heart failure when I saw what else they had done.

Over one-third of the 2 by 10 floor stringers were replaced with new lumber. When I examined the ones they had removed I saw the reason. They were so decayed where the old floor joined that they wouldn't hold nails. I could see my estimate falling apart, and could picture Mr. Fleming gloating over my poor judgment.

We went to the house for the traditional Scandinavian cup of coffee. In my mind, I was searching desperately for some way to cut corners. Recalling some former experiences, I asked if there wasn't some small building around the place which might make a framework for the milk house.

Hilda mentioned an old brooder house she thought they might spare. If they were to sell milk they wouldn't have skim milk to feed chickens anyway.

We looked at the building and it appeared that it might be the answer. It was 12 by 14 feet, 8 feet high in front, and 5 feet high at the back. The framework was sound and the sash was in fair condition. It would need a new roof covering, insulation, and lining.

However, I figured there might be enough saving to offset the extra cost in the loft floor.

I gave them a list of equipment they would need so they could shop around for the best prices. This included two wash vats, a cooling tank, electric water heater, can and utensil rack, storage cabinet, and hand washing facilities. I told Carl how he could make the can rack from used pipe, using a neighbor's welding outfit.

My vacation was overdue so I told them it might be several days before I could come again. They promised to have the project well along by the time I returned. I couldn't help noticing Hilda's overalls were getting a little tight around the waist.

With the Grade A project underway, there was no chance of Carl going out and working for an extra dollar. As I left them, I kept my fingers crossed wondering if they could make the grade.

Checking the log book, I find it was June 20 when I again visited the Jacobsons. Haying was finished and the barn loft was full of good alfalfa hay. The oats was beginning to turn color and looked like a fair crop.

The young couple could hardly wait to show me the barn floor. It was all cemented out, and the stalls and stanchions in place. Not a penny had been paid out for labor.

The foundation and floor of the milk house were in, and the brooder house bolted to the foundation. The insulating and lining material was on hand, as were also the wash vats and water heater.

It was nearly noon and I was invited to stay for lunch. While Hilda prepared the meal, Carl and I went over financial matters. He showed me the pile of receipted bills, and I was relieved to see they had money left.

The only big expense item remaining was the water supply. There was a driven well about halfway between the house and the barn. A pit about eight feet deep around the top of the casing had no other use than providing a "weep hole" drain so the well would not freeze up.

After lunch, we stepped off the distance from the well to the milk house and I, again, did some figuring. I told them, if at all possible, we should have an approved well as it meant five points on their score sheet. The inevitable question came, "What has an approved well got to do with Grade A milk?"

I explained that a pit well could be dangerous, not only to the milk supply but to their own health. Experiments had proved that where surface water could get to the casing, it would travel down into the water supply with danger of contamination.

I informed them that this was one job they would have to hire done as installing a water system was a job for experienced men with proper equipment. The only part which Carl could do would be filling in the pit and laying a concrete platform around the top of the casing.

Then I stepped off the distance from the well to the old dwelling house. I did some more figuring and asked, "Hilda, how would you like to have running water in your kitchen?"

She looked at me in speechless amazement until I said, "We might as well spend the whole $1,500 so you won't have to be carrying water after little Carl, Jr., arrives."

I was afraid for a minute she was going to kiss me but she kissed Carl instead. The look of happiness on the faces of this struggling young couple was payment in full for all the extra-curricular work I was doing. I directed them to a firm which specialized in water systems.

It was late in August when I again heard from Carl and Hilda. We were having our usual morning "jam session" lining up our day's work when I got a long distance call. It was Carl saying he thought he was ready for inspection. I told him I would be out to see him as soon as possible.

Fortunately, the inspector was available and we were out there by nine the following morning. It was an anxious pair as they watched the inspector go over everything very thoroughly. When he put up the score sheet, giving them a rating of 98 per cent and certifying them as Grade A producers, I knew I could never fully realize what it meant to them.

At this writing, almost seven years have come and gone since we first met the Jacobsons. They have been first-class Grade A producers, and required very little supervision.

Recently I was in their neighborhood and stopped in for a visit. You wouldn't know the place. The old house has been replaced with a modern dwelling. They have more modern conveniences than many city dwellers.

They are milking 22 Holsteins which Carl says is his limit. They now rate the second best herd in the testing association, with a 428-pound average.

A barn cleaner and mechanical cooler have been added to the dairy equipment.

How about finances? Hilda said they could pay off the mortgage today only Mr. Fleming wants them to pay the full interest.

From this rather detailed story, you can understand why I like my work. Perhaps, too, it may indicate that a dairy fieldman is not the hard-nosed old meddler he is often pictured to be. He can be a pretty useful friend to have.

In the next issue of Hoard's Dairyman I will give you a few reports on "trouble-shooting" experiences I have had. **THE END**

days x minutes = months

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Does it pay to feed out Holstein steers?

(Continued from page 659)

consumed an average of about 16 pounds per head daily of a combination of three-fourths dried beet pulp and one-fourth ground shelled corn.

For the entire period the steers consumed an average of:

1,525 pounds pulp and corn (or the equivalent of about 27 bushels of corn),

821 pounds of alfalfa,

98 pounds soybean oil meal, and

3.35 tons silage.

The steers gained 446 pounds per head; dressed 59.5 per cent, and about 80 per cent of the carcasses graded Good.

The calves used at Scottsbluff were purebred calves from the station herd, which, for one reason or another, were not retained as bulls. I, personally, would prefer to castrate within a relatively short time after birth dairy calves which are to be fed out for slaughter. However, there is no reason why the purebred breeder cannot postpone this until the calves are a few months old, if necessary, to decide whether they should be retained and sold as bulls.

These calves were full-fed whole milk for the first four weeks after birth. During the second four weeks the milk was gradually replaced with a 20 per cent animal protein-grain mixture. This was fed until the calves were 4 months old. From this age until the calves were put on pasture they were fed approximately 3 pounds daily of a grain mixture including about:

30 per cent dried beet pulp,

40 per cent barley, and

30 per cent bran, with 1 per cent steamed bone meal and 1 per cent salt added.

Of course, readily available feeds should be used, and there are many combinations which should be satisfactory. They were given access to excellent quality alfalfa hay.

Under the system of management used at Scottsbluff, calves which are 6 or more months old are grazed on native grass pasture for five or six months. Calves born in late spring are carried over until the next year. The age of steer calves put on feed in the fall, therefore, ranges from 11 to 20 months. When they are put on feed in November they weigh approximately 800 pounds. They are fed for about 150 days.

During the past two years such cattle have consumed an average of about 2,000 pounds of concentrates, almost 1.75 tons of silage, and 850 pounds of alfalfa per head. They made an average gain of almost 300 pounds per head. About one-half of the carcasses graded Good and one-half Commercial.

How calves should gain . . .

On the basis of this work, it seems that if calves weigh about 120 pounds when 1 month old, in the next five months they should gain from 300 to 320 pounds or a little more, about 190 pounds during a six-month grazing season, and perhaps 450 pounds in a 200-day feeding period.

They will eat about 260 pounds of whole milk, 30 pounds of grain, and perhaps 12 or 15 pounds of alfalfa during the first month. During the next five months or so they will either eat about 1,500 pounds of skim milk, 550 pounds of alfalfa hay, and 525 to 550 pounds of the mixture of corn, oats, and mineral; or about 650 pounds of alfalfa hay and 550 pounds of a concentrate combination of corn, oats, minerals, and suitable protein-rich feeds.

What they will eat . . .

Such steers, when about 19 months old, should weigh between 1,050 and 1,100 pounds. They will have consumed during their lifetime about:

260 pounds of whole milk,

Less than 1,400 pounds of alfalfa hay,

About 2,000 pounds of corn, oats, or similar concentrates,

100 pounds of soybean oil meal, and

3.35 tons of corn silage.

If skim milk is not fed, the consumption of alfalfa hay and protein-rich feeds will be increased slightly.

Such steers should dress about 59 per cent; the carcasses should grade Good and Commercial. The profit from feeding such steers is subject to all of the factors which usually affect feeding operations on the farm.

On many farms much of the growth after weaning age may be obtained from roughages which have little market value such as cornstalk fields, meadow aftermath, straw, and the like. Where such roughages are used, the steers should be provided with ample protein, either from 5 or 6 pounds of alfalfa hay per day or from 1 to 1½ pounds of one of the oil meals.

In our experience these steers have sold well, usually within about $3 of the practical top of the market. At times there may be more of a differential than this, when marketings of the better grades are relatively light in relation to total marketings. From the information on feed requirements, one can estimate the feed cost of producing a 1,000- to 1,100-pound steer under his farm conditions.

Generally, if feed and other conditions permit, it will be advantageous to market such steers in the spring months. After weaning they should be grown largely on pasture and on the cheaper roughages with an adequate level of protein to insure continuous growth.

Cornstalk fields, meadow aftermath, etc., can be used to advantage provided they supply plenty of feed, and provided protein and phosphorus needs are met. Consideration should be given to carotene needs. If green feed or a reasonable amount of good quality roughage is available, carotene usually will be no problem. Most of the grain should be fed in the period just prior to marketing and probably will not extend over more than 60 to 120 days depending upon the weight and condition of the cattle in the feed lot.

From these results it seems more logical for dairymen and dairy farmers to plan to feed out steers of dairy breeding than to use a beef-bred-bull on a part of their cows or, in some years, on all of their herd. My own observation is that a man who is trying to build and maintain a breeding and milking herd needs all of the females he can get in order to give him more opportunity for selection.

THE END

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The Most from Your Milking Machine

(Continued from page 561)

be taken, however, so that the pressure applied will not be great enough to break the vacuum. This downward pull on the claws is quite essential where there is a tendency for the teat cups to crawl upward on the teats and pinch off the flow of milk.

In large herds it is not uncommon to find a few quarters that a machine will not milk out.

As a last resort, dairymen sometimes are tempted to turn a cow with an injured teat over to a calf. This does not always provide a solution to the problem. A calf hates to work on an injured teat just as much as we do. Time and patience are required where teat injuries are concerned.

Rubber parts need special care . .

All rubber parts used on a mechanical milker must be kept clean, free of cracks or holes, and made of good live rubber. The liners, especially, require special attention. When liners become checked on the inside they should be discarded because they not only will do a poor job of milking, but actually are a source of contamination resulting in high bacterial counts. In addition, they may cause teat irritations that could result in teat or udder infection.

It has been found that on the average, definite microscopic breakdown usually is evident in liners that have been used three months. (Hoard's Dairyman, February 10, 1954).

By using two sets of liners and changing periodically, many dairymen are getting longer service than when only one set is used. Under this plan the liners are thoroughly cleaned by boiling them for 15 minutes in a lye solution containing two teaspoons of lye per quart of water. Following this the liners are rinsed and then stored in a cool, dark place until needed for the next change. These changes can be made once a week or every other week as desired.

Trouble shooting . . .

Following is an outline of some of the more common causes of trouble in mechanical milkers. The list is by no means complete nor does it apply 100 per cent to all milking machines. In any event, the owner should always consult expert advice before making any drastic changes.

A. Vacuum too low: probable cause
1. Dirty or plugged vacuum line
2. Leak in vacuum line
3. Lack of oil in vacuum pump
4. Slipping or worn belt
5. Drop in voltage to pump motor
6. Worn out or overloaded vacuum pump
7. Leaking hoses
8. Leaking milker units

B. Vacuum too high: probable cause
1. Stuck or dirty vacuum regulator
2. Excessive pump speed

C. Slow milking: probable cause
1. Lack of preparation or training of cows
2. Hard milking cows
3. Vacuum too low
4. Pulsators set too fast
5. Old and worn liners
6. Badly worn or dirty pulsators
7. Dirty or partially blocked milk or vacuum hose

D. Uneven milking: (one or more quarters do not milk out)
1. Leaking liner
2. Teat cups not hanging properly on cow
3. Teat injury or growth in or near teat opening.
4. Leaking air hose

E. Blue or congested teats: probable cause:
1. Leaving teat cups on too long
2. Excessive vacuum (test gauge for accuracy)
3. Pulsator set extremely slow
4. Worn out pulsator
5. Blocked air passages in pulsator

Milking—A skilled job . . .

When this whole business of machine milking is boiled down to its bare essentials, the success or failure of the venture depends largely on two things. First, the machine and second, the man operating it.

One of the big problems facing dairymen today is that of finding men who can do a satisfactory job of milking cows. Contrary to popular belief the qualifications for a good milker are high. First of all, such a person must have a practical understanding of the basic principles of milk secretion and, of course, he must like cows.

He must show consideration and kindness and be able to recognize illness and disease. He must know something about feeds and feeding. He must have regular habits, a sense of loyalty and responsibility. He must realize that in working with animals there are times when we cannot start or stop work by the clock.

In order to be able to hire such an individual and to meet the competition of others who want his services, dairymen may have to face drastic changes in terms of wages, hours, vacations, and other benefits now being granted to labor. **THE END**

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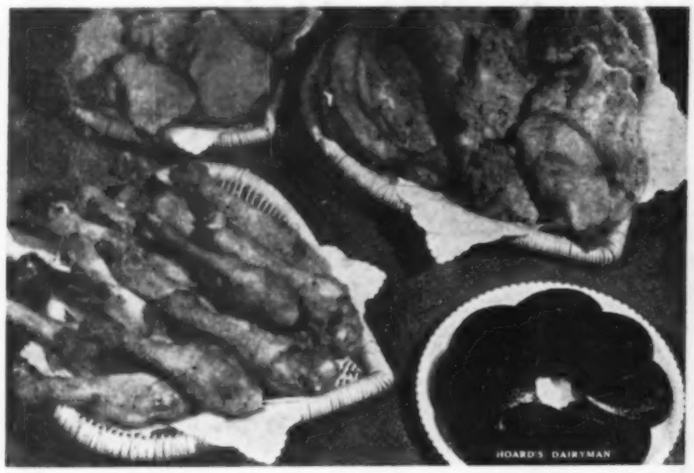
DAIRY FARM HOME

Summer Specials

by Marian Pike



Fried Chicken

FRIED chicken has for generations been a summer special of American cooks. Nowdays we are able to get tender young chickens, both frozen and fresh, the year around, but this is still the time of year when fried chicken tastes the best.

Those of us who are seasoned cooks sometimes get into a rut with our cooking and practice the same mistakes over and over again. So it is as beneficial for us to re-read the directions for even so staple an item as fried chicken as it is for a novice cook.

Young chicken of any size may be fried. The chickens may be halved, quartered, or disjointed and cut up to give 11 or 12 pieces (2 drumsticks, 2 second joints, 2 or 3 pieces of breast, 2 wings, 2 pieces of back, and neck). Each piece should have its own section of skin.

1. For **each pound of chicken, blend ¼ cup flour, 1 teaspoon salt, 1 teaspoon paprika** (scarcely any flavor but an aid in browning), **⅛ teaspoon pepper,** and (optional) **¼ teaspoon poultry seasoning** in a paper bag. Shake chicken, 2 or 3 pieces at a time, in bag to coat evenly. Save any leftover flour for gravy.

2. Heat ⅛ inch of cooking fat in a skillet until a drop of water just sizzles.

3. Start browning meaty pieces first, slipping less meaty pieces in between as chicken browns.

4. Turn as necessary with kitchen tongs or two spoons to brown and cook evenly.

5. When chicken is lightly browned, 15 to 20 minutes, reduce heat; cover tightly and cook slowly until tender, 20 to 40 minutes, depending on size and thickness of pieces. The liver and precooked heart, gizzard, and neck may be floured and browned with chicken the last 15 minutes.

6. If the pan cannot be covered tightly, add 1 to 2 tablespoons water.

7. Uncover last 5 to 10 minutes to recrisp skin.

8. Test for doneness: The chicken is done when the thickest pieces are fork-tender.

9. Lift chicken to a warm platter and serve with canned cranberry sauce as pictured, if desired.

Oven Fried Chicken

When two or more chickens are being fried, you may find it advantageous to use the oven frying method.

1. Coat chicken with seasoned flour as given in Step 1 above.

2. Brown pieces of chicken in at least ½-inch layer of fat in a heavy skillet. If a large quantity of chicken is being prepared, the browning will go much faster if a 1- to 2-inch layer of fat is used.

3. Place golden-browned chicken one layer deep in a shallow baking pan.

4. For each chicken spoon a mixture of **2 tablespoons of melted butter and 2 tablespoons of broth or milk** over the chicken.

5. Continue the cooking in a slow oven (325 degrees F.) until chicken is tender, 45 to 60 minutes. Turn once to crisp evenly. During the cooking, more broth or milk may be drizzled over chicken if it appears dry. Test the doneness the same as for fried chicken.

6. Serve hot or cold.

Fried Chicken Barbecue

Barbecued meats of all kinds are tremendously popular and it is fun to have an easy barbecue method to use for special occasions.

For barbecued chicken, follow the directions for oven fried chicken. Instead of the mixture of butter and broth or milk in Step 4, spoon **barbecue sauce** over chicken, using ½ cup for each pound of chicken. This recipe makes 2½ cups sauce, enough for 5 pounds of chicken.

Barbecue Sauce

Blend together:
1 teaspoon salt
½ teaspoon pepper
1 tablespoon paprika
1 tablespoon sugar
½ teaspoon garlic salt
Add:
1 cup catsup
1 medium onion, finely chopped
½ cup water
1/3 cup lemon juice or vinegar
1 tablespoon Worcestershire Sauce
¼ cup butter

Heat to boiling. Remove from heat. Use as your barbecue sauce as directed above.

Hot Dogs

HOT dogs are as American as apple pie. The new version of the hot dog which is pictured above is still a quick and easy way for Mother and will be enjoyed by the whole family.

These stuffed frankfurters reverse the bun around the meat version of the hot dog, and give a new seasoning to the enriched yeast-raised bread which goes with the frankfurter.

The **soft bread crumbs** are seasoned with **cooked onion, celery, parsley,** and **melted butter.** When stuffed with the seasoned cubes and baked, the frankfurters are thoroughly flavored. Serve hot with tomato sauce or catsup.

To complete the menu, you might like to serve a cheese-potato casserole, fresh buttered vegetables, tossed green salad, and beverage.

We like a **cheese-potato casserole** which can even be fixed a day ahead and refrigerated. It is **made by boiling potatoes in the jackets, peeling,** and **cubing them into a buttered baking dish. Season with salt and pepper; dot generously with cubes of cheese; pour over a cream sauce; sprinkle with paprika, and bake in slow oven until heated thoroughly.**

If time is your bugaboo, canned cream of mushroom or celery soup, diluted somewhat with milk, may be used instead of a cream sauce.

Any buttered green vegetable is good if artfully prepared.

A hard-cooked egg or two cut up into a green salad does wonders for it. If you are tired of the French, Italian, and Russian types of salad dressing you have been using, **try thinning mayonnaise or salad dressing with a little of the orange juice left from breakfast; add a slight flavor of powdered ginger and toss.**

As a border for the flower bed on the north side of our house, we plant Fine Curled Cress (pepper grass). It is similar to watercress but is grown on dry land in a shady spot. Any good seed company can supply you with it. It makes a delightful addition to a tossed salad, and will, with a little encouragement, re-seed.

Here is the recipe for stuffed frankfurters with variations.

Stuffed Frankfurters

Split **8 frankfurters** (approximately 1 pound) lengthwise, but don't cut all the way through.

Arrange in buttered baking dish. In fry pan, melt **¼ cup butter.** Add:
¼ cup minced onion
2 tablespoons minced celery
2 teaspoons chopped parsley
¼ teaspoon dried basil (optional)

Cook until onion and celery are tender. Stir in: **3 cups soft bread crumbs.** Season to taste with **salt** and **pepper.** If desired, moisten with a little hot water.

Stuff crumbs into split franks. Add a little water to baking dish to keep franks from scorching.

Bake in a moderately hot oven (400 degrees F.) 10 minutes. Serve with tomato sauce or catsup as desired. Makes 4 servings.

Variations

1. **Parmesan Franks:** Sprinkle **uncooked stuffed frankfurters** with **grated parmesan or any grated cheese.** Brown in a pre-heated broiler.

2. **Grilled Stuffed Franks:** Wrap **a slice of bacon** around each **uncooked stuffed frank.** Secure with a skewer and broil or grill over hot coals at picnic-time.

3. **Kitchen Barbecued Franks:** Mix up the **barbecue sauce** given for the barbecued chicken in an oven-proof dish. Heat at the same time **stuffed franks** are cooking. Serve sauce over franks.

4. **Hot Mustard Sauce for Cooked Stuffed Franks.** Make **1 cup of medium white sauce** and stir in **2 teaspoons prepared mustard.** Serve hot over franks.

For many people, a picnic atmosphere makes food taste even better. This version of the hot dog lends itself well to the picnic feeling.

It may sound like a lot of work to eat out-of-doors but it is surprising how much carrying and fetching the family will do for you if you handle them right. Granted that farm people are outside lots of the time, but we are held closely at home during the summer and a change of eating scene can be a change that is almost as good as a short vacation.

From Day to Day

by Lois J. Hurley

I AM writing this on a moist, muggy morning that is just right for transplanting. I've been out since dawn, digging and scattering a bed of self-seeded petunias. They came as a complete surprise: I'm sure that down home (Missouri) petunias used to self-seed but I've put in thousands of greenhouse plants in the past years and never a return plant. Lo and behold, up came thousands this spring in the planting wall strip along the south side of the house.

For the first time, this year we're trying a small bed of tuberose begonias on a damp strip along the north wall of the garage. It's shaded from 9:30 a. m. on, so they should thrive there. Their flowers are so impressively brilliant that they must be seen to be believed. And the plants cast them off while in full color; you pick them up, float them in a low bowl and enjoy double duty from their beauty outside and inside.

I visited the iris gardens last week and marked some plants as mine, that I'll pick up soon. I took Indian Hills, a velvety mahogany-purple; Jasmine, a clear yellow; Shimmer, a button-holed blue and a beautiful white whose name eludes me, at the present.

The old gentleman who has the iris garden I'm talking about is one of those true gardeners who likes to talk to fellow lovers of plants and flowers. We spent a pleasant hour going over his plots, specialty of which are his "lazy man gardens". These are big concrete scoops sunk in the ground, filled with lilies planted in containers and the whole filled with water.

He says he refills only about every three years; does not drain for winter and gold fish eat the mosquitoes; nothing to do but watch the fascinating process of the beautiful water lillies as they bud and unfold and float on the water.

He showed me a novel begonia plant that he calls "Strawberry". It hangs full of red, round flowers that look like a profusion of rich, red strawberries and is a prolific bloomer, inside and out. I brought three plants home with me and tucked them out among their tuberose cousins in the strip beforementioned.

The greatest joy that has come to me as an amateur gardener, this year, is the procuring, at last, of a paniculata clematis.

When I was buying some new roses and a few perennials, I mentioned to the nurseryman that I had long tried to get one; that I bought three plants one year and all died; that a friend who had one had watched in vain for a slip for me but that all efforts had failed. He gave me a long look and without saying a word disappeared in the far reaches of his greenhouse. In a few moments he returned with a pot in which, you've guessed it, there was growing a thrifty clematis, paniculata type!

He'd put it in with some jackmanis a couple of years ago and never got around to transplanting it. Needless to say, it rode home with me and now has its feet in some deliciously rich soil at the base of the patio wall and soon, I hope, its little fingers will start pulling it up over the rough stones, over which, the books say, it loves to clamber.

The new climber, Doubloons, is in full bud, at this writing, and all the roses give rich promise of fine bloom. We spaded in a 100-pound bag of bone meal and sprinkled the bed heavily with activated dairy compost, so should have a good rose year.

Well . . . so far this is a column of most interest to gardeners, but I think most women have a real or vicarious interest in growing things, be it flowers or vegetables. There is new drama every day in a garden. Maybe it is the unfolding of the crumpled silk of an Oriental poppy; maybe it is pulling up the first tender, sweet plump globe of a radish, with its red tummy and white foot.

Maybe it's cutting a pan of cool, smooth-leaved lettuce or cracking open the first pea pod and seeing that the sweet little green balls are swelling and will soon be saucepan size. Maybe it's going out in the early morning and cutting a beautiful rose bud with a drop of dew sparkling on its heart like a precious jewel.

Yes . . . gardening holds a new joy every day, which repays the muddy fingers, tired backs, and sore muscles after a round with the hoe.

The soil almost never fails in its job of sustaining us in life. Just recently I read a very gripping story based on the fantasy that for the sins of man in destroying the soil in wars and with our awful bombs, it refused to yield. The fields grew up in stinking weeds; the fruit trees bore no fruit; no food could be raised. It made a very deep impression on me and I thought "this might happen".

Then, in getting ready for Children's Day, Kathy's primary class had to memorize this Bible verse: "While the earth remaineth, seedtime and harvest, and cold and heat, and summer and winter, and day and night shall not cease."

In locating the passage for her (which is the 22nd verse of the eighth chapter of Genesis) I went back a few verses and found that the words followed the Lord's pronouncement after the floods had subsided and Noah had come out of the ark. And there is still more reassurance to be found there. . . .

"And the Lord said in His heart, I will not again curse the ground anymore for man's sake; for the imagination of man's heart is evil from his youth; neither will I again smite anymore every thing living, as I have done."

So according to that, we will not be penalized for the evil imaginations of our hearts by a refusal from the earth to sustain us. This doesn't mean that we can lie down on the job of caring for the land, nourishing it, and treating it with the respect it deserves. If every nation and all peoples did that, the scourge of hunger would disappear and men would live together on much more peaceful terms. It's easy for a hungry man to hate his well-fed brother.

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Picture Pointers

Pictures play an important part in your decorating scheme. Here is how to use them to make rooms more interesting.

by Virginia Blodgett

—Photos courtesy The Stylist Magazine

OFF CENTER ARRANGEMENT is, in some cases, very effective. There is no rule that a picture must always be "front and center."

THE right picture or grouping of pictures adds color and character to any room. But pick your pictures with care and hang them with imagination in order to make the most of their decorative possibilities.

What kind to use? . . .

If your living room is done in early American, keep your walls in character with Courier and Ives prints, early American historical scenes, or other subjects related in theme. Modern abstracts and surrealistic whimsies belong in a 20th century setting.

You can, however, blend modern and traditional if you do your mixing with moderation. Chinese modern prints, for example, can be blended gracefully into almost any background. Old-fashioned flower or bird prints in simple frames go well in the modern mode.

Remember that, whatever type of picture you may use, a too elaborate frame will detract from the picture and give your walls a cluttered look.

Groupings add glamour . . .

One lone picture in a vast expanse of wall looks lost. A picture hung on a wall with no furniture below gives a feeling of unbalance. So plan your picture spacing in relation to your furniture arrangement. Don't place one small print above a massive piece of furniture. The same goes for a very large picture over a small and delicate looking piece of furniture.

Here's where groupings can be your solution. A grouping of several small pictures over a heavy piece of furniture gives the same good balance as one large picture. And the pictures needn't be all the same size or shape. Interesting miniatures, family portraits or silhouettes, and small prints that would be lost if hung separately, assume interest and importance grouped together.

Remember when you're grouping pictures to keep them similar in subject matter. Never place pictures in a staggering stairstep arrangement on a wall unless going up a stairway. They should be at eye level in relatively straight lines.

You can combine large and small pictures in a grouping if the space warrants. Flank the large picture on either side with the smaller ones. Or try an off center arrangement with the large picture at one side and the smaller ones grouped together beside it. When you're planning any grouping of pictures, it's a good idea to plot it out on paper first. This will give you an idea of how it will look before you pepper your wall with nail holes.

A picture grouping needn't be entirely made up of pictures. You might want to use a clock, a large mirror, or a wall planter as the center of your grouping. Or have a hanging planter on either side of a row of pictures.

Keynote for colors . . .

One impressive picture could provide the color scheme for your entire room. Give the picture a prominent spot, over a fireplace, perhaps, and then decorate your room in the picture's key colors.

If your room has already been decorated and you're adding pictures as accessories, repeat the important colors in the room in your wall hangings.

If it isn't possible to find the right colors in the actual picture, you might be able to make a perfect match in the mat or the frame.

The trend for dark walls calls for contrast in pictures. But you can still use a picture in dark tones against a dark wall if the frame is a light color, or with a wide, light mat.

It's a pretty good rule to forget about any pictures at all on a busily patterned wallpaper. However, if the picture is simple, with a wide mat and plain frame to separate it from the wallpaper pattern, it can be done. The colors should be in close harmony, too.

Pictures with personality . . .

Your own imagination and ingenuity can make conversation pieces of your walls.

If you'd like to fill in the space over your davenport with an interesting grouping of pictures, but the expense prohibits it, make your own pictures. And you needn't be an artist. Maybe you have a collection of fascinating buttons. Sew them on a colorful fabric backing, felt, for instance, several to a setting and frame with inexpensive unfinished frames. Finish or paint the frames to match your furniture or woodwork. Or maybe someone in the family collects coins or stamps. Or, if you've a collection of prize ribbons for your livestock, what better way to show them off!

In a child's room you could frame your offspring's first works of "art." If there's a photographer in the family, have his favorites enlarged and mounted under squares of glass, (with no frames); group together on a wall for a smart point of interest.

If you have a yen for real art, but can't afford the cost, inexpensive reproductions of masterpieces are one solution. Or if you live near a large city with an art museum, you might want to investigate their rental plans. Some art centers will rent really good paintings for a very nominal fee. **THE END**

GOOD BALANCE is illustrated in above furniture grouping.

PICTURE GROUPINGS complete arrangement. Dark mats contrast light wall.

Home-Canning Roundtable

by Lucina Ball

THESE DAYS, WHEN EVERY PENNY COUNTS, WISE HOME-PLANNING INCLUDES LOTS OF HOME CANNING. Consider how much farther your money goes with good, nutritious home-canned foods—put up at a cost of only 3¢ per jar for heat, jar and closure—with jar-life estimated at 8 years (based on reliable surveys). So, can MORE—for balanced diets *and* budgets!

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No need to give the whole day to canning! Work with small batches, process a few Ball Jars at a time—enough for one canner-load. Or, when cooking, prepare an extra quantity of fruits and vegetables—and can a few jars for a surplus supply next winter.

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Menu Variation

Try putting up beet pickles like this:

1 gallon small beets	2 sticks cinnamon
2 cups sugar	1 tablespoon allspice
1½ tablespoons salt	3½ cups vinegar

Wash and drain beets. Cover with boiling water. Cook until tender. Remove skin, stem and root ends. Add sugar, salt, spices, and 1½ cups water, to vinegar. Simmer 15 minutes. Pack beets into hot Ball Jars. Heat liquid to boiling. Pour, boiling hot, over beets. If not enough liquid to cover, add more vinegar. Process pints and quarts 30 minutes in boiling-water bath.

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In the new Ball Blue Book of Home Canning and Freezing are over 300 ways to better eating—over 300 recipes for fruits, vegetables, pickles, preserves and sauces! Exact timetables and step-by-step methods in full color. All yours by sending 25¢ (coin) to:

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POULTRY

by H. H. Alp

More Eggs in Hot Weather

While eggs are not currently too profitable, it will, however, pay to protect the flock against extreme heat. This is the time of the year when there may be a tendency for egg production to decrease. Quality may go down at the same time and a combination of the two could prove to be quite costly.

The following suggestions should prove helpful in maintaining both production and quality.

1. Increase ventilation, particularly cross-ventilation. Since most poultry houses have low ceilings, some of them without any insulation, it is important to get air movement near the ceilings. This can best be done by ventilator openings in all four walls or through the use of fans.

2. Check birds for body lice. Any infestation of lice during hot weather would help to cause a drop-off in egg production.

3. Use ventilated nests. If you are using the single type nest without any particular ventilation provisions, then this would probably be a good time to build a community nest.

Community nests consist of a large box type arrangement, fastened to the wall without any compartments. Construction detail of this type of nest can usually be had by writing the Poultry Department of your State College.

4. Shaded windows. While you probably won't need to invest in venetian blinds, it would pay to invest in some type of shade for most poultry houses have a southern exposure. Feed sack material or a heavy duty type building paper might be used.

When birds are outdoors, shade shelters would be worthwhile. These can be made in a number of ways although brush laid over poles, supported by a wooden framework 3 or 4 feet off the ground makes a very satisfactory, inexpensive shade shelter.

Summer Appetizers

Maintaining appetite during hot weather is something of a problem, and loss of appetite is probably one of the real causes of summer drops in egg production.

Some extra green feeding, such as, freshly cut alfalfa or surplus garden greens helps to maintain feed consumption. Since there is a lot of surplus milk in the country, some of it might be used as a summer drink along with the regular feeding program and there is no better drink for poultry than skimmed milk. Used in connection with a high protein ration, it should be used only as a dessert and not to replace the water as the regular drink.

Adding 1 to 2 per cent of blackstrap molasses to the drinking water or to a special feed mixture such as a moist mash, makes an excellent appetizer.

Maintaining Summer Egg Quality

With the birds approaching the end of their laying season, there will be a tendency for egg shells to become thinner and this will be a factor causing faster deterioration in interior egg quality. For this reason, it would be advisable to make sure the birds have plenty of calcium available in their feed in the form of oyster shells; or the above mentioned suggestion regarding the use of milk also might help this situation because, as we all know, milk carries considerable calcium.

Watch Where You Store the Eggs

Eggs should be gathered at least three times a day during hot weather and should be pre-cooled before being put in cartons. This will mean that they should be kept in a fairly cool, moist place. For a number of poultrymen it has paid to build an air-conditioned room purposely for egg storage.

Cull Quickly

Cull quickly all birds which appear to be out of production. Hot weather culling is particularly helpful in preventing hot weather mortality. Now that eggs are low in price it would pay doubly well to get rid of any bird just as soon as she quits laying.

How Is Your Poultry I. Q?

1. Which of the following would most likely be used to keep away four-legged chicken killers?
Road-flares Traps Guns

2. What air-cell shrink is usually permitted in top grade eggs?
1/8 to 3/16 of an inch ¼ of an inch
⅜ of an inch

3. Fat tracts are an indication of
Finish Deformity Over-age

4. A turk-hen is
A cross between a turkey and hen A genetic manifestation A bird in the molt

5. A stag is
A young male chicken An old rooster A cockerel

6. To make one pound of dried eggs it would require how many shell eggs?
30 24 38

7. How many pounds of frozen whole eggs will a 30 dozen case of shell eggs make?
50 pounds 37 pounds 40 pounds

8. Dirty eggs are sometimes cleaned with a solution of
Sodium hydroxide Sodium flouride
Calcium carbonate

Your score: 4 correct—Fair, 6 correct—Good, 7 correct—Excellent.

Correct answers on page 677.

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YOUNG DAIRYMEN

Let's Kill Those Hungry RATS

One rat will eat 50 pounds of feed yearly, and in the process, spoil or contaminate at least three times that much.

by Rodney Latzig

THIS FAT RAT has done a beautiful job of destruction in some farmer's stored corn.

IF YOU were asked the question, "What is the most destructive animal on earth?" perhaps many of you would think of bear, mountain lions, or tigers. However, this is not the case. Rats are the most destructive animals on the face of the earth.

Rats today are a luxury few farmers would admit they could afford, if they knew the full cost and full extent of their damage.

Rats cause considerable damage to farm buildings through gnawing and burrowing. Most of the gnawing just makes the farm look unprosperous, ill-managed, and generally run-down. However, when it's an electric wire that has been chewed, you can chalk up another farm fire. Many farmers can actually cite cases where they have lost baby pigs and baby chicks directly to the rats. When this happens, a good deal of money is lost.

Also, rats are disease carriers. Most of the diseases hit us only in the pocket-books in the form of rabies, swine erysipelas, Newcastle disease of poultry, and trichinosis. However, occasionally, you hear of humans who have contracted trichinosis, a disease that can be traced directly to the rat. Another of this type of disease is typhus fever, which in the first World War proved more deadly to the German and Russian armies than the bullets of the enemy. All in all, rats are dangerous, destructive, and disgusting. Parasites of man, they exist only because we permit them to live and multiply at our expense.

What can be done to aid in controlling rats? The answer is, "plenty."

However, rat control is a continuous battle. You can't relax your program as the rats won't relax. If you let up in the program, the rats will just move back in.

The first step in a rural rat control program is to kill all rats on the farms. Science has come to the aid of the farmer in his battle to keep his premises rat free. The job has been made easier through the discovery of warfarin.

Discovered a rat killer . . .

Warfarin has been discovered at the Wisconsin Experimental Station and in recommended dosages there is little danger to the handler and 100 per cent rat kill is possible. Warfarin kills rats by causing internal hemorrhages. It was originally called "Compound 42" and is originally chemically related to Coumarin, which causes internal bleeding in cattle eating spoiled sweet clover. Coumarin was first studied at the Wisconsin station 17 years ago when workers there discovered it was responsible for the sweet clover disease. A few years later dicoumeral was discovered. It is now given after surgical operations to prevent blood clotting.

Warfarin was developed by Dr. Karl Paul Link. It has been tested through the U. S. Fish and Wild Life Service, the Department of Agriculture, Public Health Service, National Pest Control Association, and the Wisconsin Alumni Research Foundation.

The Wisconsin Alumni Research Foundation holds the patent on warfarin. It licenses producers of the pure drug, but does not manufacture any brand of the rodentcide. Baits are generally available and can be obtained through local outlets.

F.F.A. or 4-H project . . .

Building bait stations for use of warfarin is a simple process and makes an excellent F.F.A. or 4-H club project. The Wisconsin Alumni Research Foundation offers two plaques to clubs participating in a rat control program. A silver plaque is given to the club after each member successfully conducts a rat control project on his own farm. A gold plaque is given after sufficient proof is offered that through demonstration, display, and publicity the program has gained community participation. For information write to:

Educational Department
Wisconsin Alumni Research Foundation
Madison 1, Wisconsin

A simple type bait station for the use of warfarin can be made by merely placing the bait on a long board, alongside a corncrib or other building in a rat infected area and then placing another board over the top to prevent animals from getting at it. Larger type bait stations can be made by constructing boxes of various sizes and having openings about two inches at each end, and slanting the roof to permit water to run off.

Advantages of warfarin . . .

Now let us look at some of the outstanding advantages of warfarin. Warfarin requires no pre-baiting; also causes no bait shyness. Rats will continue to eat warfarin while dead rats lie within a few yards of them. The bait, which contains 0.025 per cent warfarin in corn meal, is easy to use and is safe to the handler. The problem of household pets eating the bait is greatly reduced as no meat, fish waste, or fat need be used and dogs and cats usually don't relish the dry uncooked corn meal or corn meal and rolled oats bait.

Warfarin is safe to use around poultry houses as chickens seem very resistant to the action of warfarin. Healthy chickens have been raised eating amounts of warfarin that would have killed rats within 10 to 15 days.

If a child should happen to eat the bait, once, no complication should arise. However, if the child ate the bait two or three days in a row, and complications should arise, the danger of serious hemorrhage can be avoided if massive amounts of vitamin K are given.

Warfarin makes a permanent baiting program possible. It has rid the University of Wisconsin poultry yards of all signs of rat activity for the first time in almost 30 years. Results in feed storage and other problem areas have been excellent.

Now rat infested areas can lie completely cleaned up. A good rat is a dead rat. It is the responsibility of everyone to clean up his farm, home, and community and help make the country, your state, and your community a more prosperous place to farm and a better place to live. **THE END**

The author of this article was a member of the F.F.A. Chapter at Merrill, Wisconsin, for four years, and is now in partnership with his father on the home farm. This article was his winning F.F.A. speech when he was a senior. He won the local and district contests and placed high in the state contest.

Questions from Our Readers

Information on Agricultural Engineering

I graduated from high school this June and would like to know where to obtain information on Agricultural Engineering courses in colleges.

I have always liked to work with farm machinery and other farm equipment. My father gave me a free hand in keeping all our farm machinery in good repair.

I have two younger brothers who would like to take over the home farm; therefore, I am interested in knowing what the possibilities are with an Agricultural Engineering degree.

Kentucky **John Allen**

THE agricultural engineer receives a thorough basic education in the sciences of chemistry, mathematics, and physics. He gets specialized training in building design and construction, heating and ventilating equipment, electrical and mechanical power devices, and in several other fields important to the agricultural profession. Therefore, a high school graduate who contemplates taking college work in agricultural engineering should have above average ability in these areas.

He should have a satisfactory high school average and should have adequate training in mathematics and the basic sciences. A farm background is an asset but is not essential.

The agricultural engineering curriculum is designed to develop background in science, engineering, and agriculture and to train in the application of engineering to agriculture.

The college training normally requires four years and leads to a Bachelor of Science degree in agricultural engineering.

Many agricultural engineers are employed in public service; some are on college staffs as teachers, extension personnel, or as research specialists while others are employed in soil conservation and irrigation projects conducted by various federal agencies.

Agricultural engineers hold managerial positions in banks, insurance companies, and farm management companies. Some graduates are self-employed, doing consulting and contracting work of an agricultural engineering nature. Still other graduates return to the farm after graduation and apply their training directly to farming operations.

Graduates in agricultural engineering have gone into a wide variety of technical positions. In industry, many of them are designing, developing, and testing farm machinery. They conduct research in tillage, harvesting, and crop processing. They design buildings for storage of farm crops and farm livestock. Many agricultural engineers fill the higher administrative positions in industry.

As agriculture becomes more highly mechanized and technical, the need for engineers in this field becomes greater. The design and development of modern farm equipment and buildings is the job of the agricultural engineer.

While the number of agricultural engineers has increased, the need for them has also increased and there is a continued shortage of trained personnel in this technical area.

A well engineered and efficient agriculture means a higher standard of living for everybody. This means that agricultural production will require more and more engineering.

It's the job of the agricultural engineer to bring to agriculture the management, science, and techniques required for efficient use of power, materials, and labor. More people require more food. The farmer of tomorrow will be required to produce one-fifth more; where we have four dinner plates on the nation's table today, it will be five for the next generation.

Further education, training, and research is available in a large number of areas on a graduate level at our state colleges and universities. However, the four year program and the Bachelor of Science degree in agricultural engineering provide adequate background for the young graduate engineer to step into industry or public service and make a significant contribution in this vital field of engineering work.

For further information concerning requirements and opportunities for a future in agricultural engineering, please write to your own state college or university addressing the head of the Department of Agricultural Engineering.

HOBART BERESFORD
Agricultural Engineer
Ames, Iowa

Poultry I. Q. Answers

(From page 675)

1. Road-flares are frequently used for frightening away animals. They are used around the range shelters. An all-night electric yard light is also effective.

2. 1/8 to 3/16 of an inch in top grade eggs. More shrink than this coupled with other factors make for lower grades.

3. Fat-tracts are an indication of finish. They are the creamy-yellow colored areas on the sides of the breast, back, and thighs. The creamy-yellow color denotes finish.

4. A genetic manifestation. The naked-neck character behaves as a single dominant to normal feathering.

5. A stag is a young male chicken past the stage of good meat quality; large comb and spurs are characteristic of stags.

6. Since drying usually reduces eggs to about one fourth of their original weight, it will require about 38 eggs of normal size to make a pound of dried product.

7. A 30 dozen case of eggs will make approximately 37 pounds of whole frozen eggs.

8. A 1 per cent solution of sodium hydroxide is sometimes used for cleaning dirty eggs.

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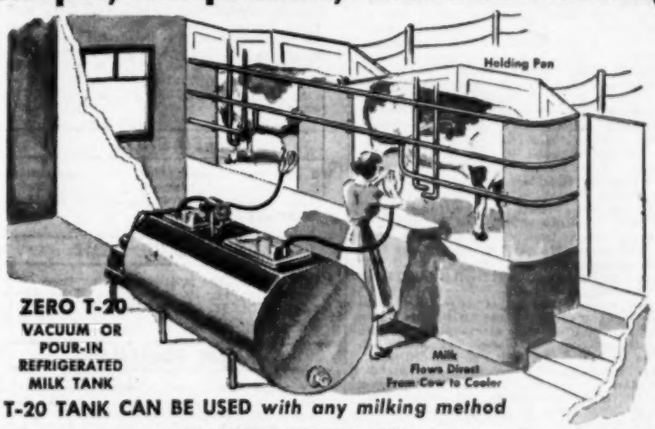

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IMPORTANT news for farmers. New "finely ground" Brown Sugar Rock Phosphate from famed Hickman County, Tenn., is now ready for distribution. It's Triturated for easier plant use and better first year results! Dealers invited. Write for particulars while choice territories are still available. M. C. BOYLE CO., Dept. H. D., 407 So. Dearborn, Chicago 5, Illinois. 14-2

FEED BAGS

WE pay highest prices for your empty cotton and burlap feed bags. Write for our quotations. THE DAYTON BAG AND BURLAP COMPANY, Dayton, Ohio. 1-*

DAIRY EQUIPMENT

MILK Coolers. The most outstanding front loader you can buy at any price. Write direct factory. MASTERFREEZE, Dept. H., Sister Bay, Wisconsin. 14-4

FARM EQUIPMENT

COW stalls, pens, steel windows, hay carriers, steel fence post, post pullers. Immediate shipments. STANDARD EQUIPMENT, INC., Bel Air, Maryland. 18-*

LOW cost grain drier. Removes moisture and protects shelled corn, wheat and other small grain. Fits any bin. Write LOUDEN, Dept. 3, Fairfield, Iowa. 11-*

BOOMS Wagon Unloader. All-purpose. Inexpensive. Easily attaches to your present wagon. Also self unloading feed carts. Free literature. BOOMS SILO COMPANY, Harbor Beach, Michigan. 4-spl

LIQUID manure pump Luna No. 3. Write to P. O. BRANDENBERGER, 6031 S. W. Pendleton Crt., Portland 19, Oregon. 6-spl

INSTALL The Boss Drinking-cup System in your barn. Save half—do it yourself. Simple, easy. Facts, figures free. WADSWORTH MANUFACTURING, Wadsworth 11, Ohio.

NAVY surplus steel buildings: Never used; 20by48, 20by60, 20by72, use for machine sheds, cattle, storage, shops, etc. See them at my farm. MR. C. C. CASH, Hanover, Wisconsin. (Phone Orfordville 9-2192). 14-2

FARMS FOR SALE

MODERN Grade A dairy farm for sale, direct from retiring owner. Located on State Highway in Dodge County, Wisconsin. Has modern 46 stanchion newly remodeled 2 silo barn, with new barn cleaner. Farm is fully equipped, has a complete, almost new line of machinery, which cost over $20,000, including 3 new tractors, chopper with all 3 attachments, unloading racks, etc. The herd consists of large, rugged, heavy milking Holsteins, all raised on this farm, and produce over 300,000 lbs. yearly. House is 4 bedroom, newly remodeled, and painted white frame, in a pretty setting. Fire Insurance of $69,350 in force on buildings and personal. Complete price is $60,000. Owner will accept as little as $10,000 down payment. Balance of $400.00 per month, includes interest. BOX 327, care Hoard's Dairyman, Fort Atkinson, Wisconsin.

160 ACRE, modern equipped, grade A dairy farm located in Lee County, Illinois. Excellent modern buildings; new milk house equipped with bulk milk tank; dairy barn equipped with hay dryer and automatic barn cleaner; soil in top state of fertility; well fenced. Priced right at $345 per acre. BOX 330, care Hoard's Dairyman, Fort Atkinson, Wisconsin. 14-2

"LIVESTOCK and Farm Commodity Outlook" and "1000 Pounds of Meat per Acre". Write for them. KINGWELL AGENCY, Realtors, Box 267A, Corvallis, Oregon. 12-*

FARMS FOR SALE

380 ACRE, modern equipped, combination Grade A dairy farm and stock farm located in Lee County, Illinois. Two sets excellent modern buildings and good dwellings with baths. Dairy farm—new milk house equipped with bulk milk tank; dairy barn equipped with hay dryer and automatic barn cleaner; soil in top state of fertility; well fenced. Stock farm—all modernly equipped to handle 120 feeder cattle and up to 400 hogs; all on concrete; with automatic electric waterers. Priced right at $290 per acre. BOX 329, care Hoard's Dairyman, Fort Atkinson, Wisconsin. 14-2

MODERN Wisconsin farms. Dairy and corn belt of west central Wisconsin. St. Paul only 40 miles. Prices $75 to $150 per acre. Fine selection. Write list "D" photos and descriptions. "JIM" DERINGER, Realtor, Baldwin, Wisconsin. 14-2

GEORGIA dairy farm for sale, complete with herd and equipment. Excellent home, three tenant houses, plenty running water, year round grazing. Also have excellent offers in pasture and timber lands. For details call or write, SOUTHERN STATES MORTGAGE and INSURANCE CO., 227 W. Washington St., Athens, Georgia.

ALABAMA—80, 30 cultivation, house, near Foley, $5,500.00. 640, raw, 200 cleared, extra good, $64,000.00, near Atmore. Many listings, write D. Z. GROVE, Realtor, Summerdale, Alabama.

SOUTHERN Virginia Grade A dairy, 229 acres —125 high cultivation and improved pasture. Worked for years in strip crop rotation as recommended by S.C.S. Some marketable timber—30 high producing Holsteins—some registered. Base on Petersburg market. Tobacco allotment—two new cinder block barns with oil burners. Good 9 room modern home. All necessary buildings and dairy equipment. Baled hay in barn. Fish pond stocked with bass and bream. $50,000. Death of husband only reason for selling. MRS. JOHN L. TUCKER, McKenney, Virginia.

538 ACRES good Georgia land—17 miles from Augusta, Georgia. Nice large bungalow and 5 tenant houses. Dairy barn and several other good barns. Modern conveniences. Good road. School bus, telephone. 150 acres pasture. 2 fine creeks. 100 acres pine timber. Price $27,500.00, terms. H. GOULD BARRETT & CO., Realtors, Augusta, Georgia.

GEORGIA farms for sale. Large, Small. JOHN B. SAVAGE, Montezuma, Georgia. 14-26

STROUT Realty Catalog. Mailed free! Farms, homes, businesses, 34 States, coast-to-coast, 3240 bargains described. World's largest; 54 years service. STROUT REALTY, 7-T So. Dearborn St., Chicago 3, Ill. 8-*

LARGE Dairy, 480 acres on U. S. 17. Complete, cows and equipment, 2 silos, house and barns. Excellent condition. Write GARDENS CORNER DAIRY, Sheldon, So. Carolina. 9-6

SOUTHERN Wisconsin dairy farms, all located near Fort Atkinson, the world's dairy capital. Our lists are always complete. Write for free catalogue. LOGANWAY, INC., Wisconsin's leading farm brokers, Fort Atkinson, Wisconsin. 6-*

IN Delaware—Farms of all sizes; homes, businesses, and investment properties. MARY VINSON DALY, Real Estate, Wyoming, Delaware. 18-spl

VIRGINIA livestock, dairy farms and country estates. P. M. BROWNING, Realtor—JOHN H. HITT, Associate, Culpeper, Virginia. 1-*

FARMS WANTED

WANTED to rent for fall 1954—modern 150 to 300 acre dairy farm southeastern Wisconsin. Cash or shares. Present herd 40 head Holstein cattle. Full line modern machinery. Married—age 40—lifetime experience. BOX 331, care Hoard's Dairyman, Fort Atkinson, Wisconsin.

HELP WANTED

SINGLE men with dairy, poultry, general farm experience. Top farm wages. Chance for training and advancement. Excellent working and living conditions. Steady, year-round work. BOX 720, care Hoard's Dairyman, Fort Atkinson, Wisconsin. 13-*

HELP wanted on Large Certified Milk Farm. Good wages. Pay for overtime. Room and board reasonable. Opportunities for dependable men. Write for information. WALKER GORDON LABORATORY COMPANY, Plainsboro, New Jersey. 24-spl

DAIRYMAN—One single, one married, for top Holstein herd. M. MOORE, 1247 Belmont Ave., Chicago 13, Illinois. 10-*

ONE of the largest and best registered Holstein herds in midwest needs a man qualified as manager and/or herdsman. Give complete details of background. BOX 311, care Hoard's Dairyman, Fort Atkinson, Wis. 11-4

WANTED—Middle-aged herdsman. Good job for married man who understands duties and responsibilities. Wisconsin. Guernseys. Give references first letter. BOX 321, care Hoard's Dairyman, Fort Atkinson, Wisconsin. 12-3

EXPERIENCED single man for dairy farm (Guernsey) 6 miles from Lincoln, Nebraska. BOX 326, care Hoard's Dairyman, Fort Atkinson, Wisconsin.

WANTED—Married working farm manager on 200 acre well equipped dairy farm. Small pure bred herd of cattle all on test. Man must assume full responsibility for operation and other help. Modern home. Top salary. BOX 325, care Hoard's Dairyman, Fort Atkinson, Wisconsin.

HERDSMAN to take charge of a herd of Registered Holstein and also the feeding of beef cattle, hogs, and poultry. State experience and other personal data in first letter. Excellent positions for right party. ILLINOIS MASONIC HOME, Kenneth Russell, Sup't., Sullivan, Illinois. 14-2

POSITIONS WANTED

HERD Manager or Herdsman, 48, with son as assistant, recent immigrants from Scotland, desire responsible position. Life experience with registered cattle, showing, etc., and all farming operations. BOX 330, care Hoard's Dairyman, Fort Atkinson, Wisconsin.

POSITIONS WANTED

TENANT—Desire to work small dairy farm on share basis. Eastern states preferred. Reliable, ambitious worker with dairy experience. Married with small family. Agricultural college graduate, Texas A & M, Connecticut University. Separated from U. S. Navy in August. LTJG JAMES R. BECHERT, USS Tidewater AD-31, care FPO, New York, New York. 13-3

AUCTIONEER SCHOOLS

LEARN auctioneering, terms, soon. Free catalog. REISCH AUCTION SCHOOL, Mason City, Iowa. 23-*

LEARN auctioneering. Term soon. Write for catalog. MISSOURI AUCTION SCHOOL, Box 8425D4, Kansas City, Missouri. 9-*

OF INTEREST TO WOMEN

NYLON hosiery bargains. Factory rejects (thirds) 6 pair $1.00. Our better grade (seconds) 3 pair $1.00. Our select grade (irregulars) 3 pair $2.00. Postpaid when cash with order. ALLEN HOSIERY COMPANY, Box 349, Dept. 11, Chattanooga, Tenn. 1-*

LOOK! Full fashioned nylon hosiery: Irregulars 3 pr. $2. Seconds 3 pr. $1. Thirds 6 pr. $1. Satisfaction guaranteed. PREMIER SALES, Box 8177, Chattanooga, Tennessee. 4-*

MAKE money introducing world's cutest children's dresses. Big selection, adorable styles. Low prices. Complete display free. Rush name. HARFORD, Dept. M-1376, Cincinnati 25, Ohio. 13-10

BUY wholesale thousands nationally advertised products. Enormous savings! Sell others. Profit tremendously! Catalog 25c. Refundable. WHOLESALERS MART, P. O. Box 6125D5, Houston, Texas. 14-4

POULTRY—BABY CHICKS—DUCKS

BROILER Whites—Pullorum clean—large type. Available throughout year at competitive prices. All guaranteed. SKARSTAD TURKEY HATCHERY, INC., Rochester, Minnesota. Tel. 3190. 12-*

SWINE

FOR Sale—8 to 10 week old pigs, $12.00. C. ACKER, Middleton, Wisconsin.

DOGS

GENUINE English Shepherd and Collie Pups. Healthy and strong. Guaranteed heelers. Year's trial. Choice of sex. Spayed females a specialty. Priced right. CLOVERDALE KENNEL FARM, Ackley, Iowa. 18-*

SHEPHERDS, Collies, outstanding heelers, watch dogs. ZIMMERMAN FARMS, Flanagan, Ill. 5-*

WORKING Border Collies. Imported parents. Puppies guaranteed. HOWARD McCLAIN, R6, Lima, Ohio. 2-*

RABBITS

EARN up to $400 monthly raising Angora and New Zealand rabbits. Plenty markets. Particulars free. WHITE'S RABBITRY, Jackson, Michigan. 19-*

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FANFOLD Fotos—Now by mail. Roll developed, 8 brilliant enlargements in album form, all for 25c coin. MAIL-PIX, Box 7100, Elkins Park, Pennsylvania. 14-*

MISCELLANEOUS

SILO Inner-Seal (linseed mix) seals silos. Write for Silo Care & Repair folder. INDIANA SILO & PAINT CO., North Manchester, Indiana. 7-*

Sale Annoncements

Aug. 4—Guernseys. Canadian Guernsey Breeders Sale near Toronto, Canada. Sale Mgrs., Louis McL. Merryman & Sons, Inc., Sparks, Md.

Aug. 16—Guernseys. Louis Merryman's 91st Sale, Timonium, Md.

Sept. 20—Guernseys. New York State Sale, Rhinebeck, N. Y. Sale Mgrs., Louis McL. Merryman & Sons, Inc., Sparks, Md.

Sept. 24—Guernseys. Baltimore-Harford Sale, Timonium, Md.

Sept. 27—Guernseys. Langwater Sale, North Easton, Mass., Sale Mgrs., Louis McL. Merryman & Sons, Inc., Sparks, Md.

Oct. 1—Guernseys. Franklin-Burkeville Sale, Burkeville, Va. Sale Mgrs., Louis McL. Merryman & Sons, Inc., Sparks, Md.

Oct. 18 — Guernseys. 6th Franchester Sale, West Salem, Ohio. Sale Mgrs., Louis McL. Merryman & Sons, Incorporated, Sparks, Md.

Oct. 18—Guernseys. Wisconsin Show Window Sale at Waukesha, Wisconsin. Wisconsin Guernsey Breeders' Association, Sale Mgr., Waukesha, Wisconsin.

Nov. 5—Guernseys. Louis Merryman's 92nd Sale, Timonium, Md.

Nov. 15—Guernseys. Curtiss Candy Sale, Cary, Ill. Sale Mgrs. Louis McL. Merryman & Sons, Inc., Sparks, Md.

Buy...

U. S. SAVINGS BONDS, NOW!

McDonald Farms Guernsey Sale

The 1954 McDonald Farms Guernsey Sale under the management of Louis McL. Merryman and Sons was, as always, a very successful one.

The buyers came from 16 states and Canada. They paid a total of $95,050, or an average of $2,066 for the 46 head offered. A total of 24 animals brought $1,000 or more.

It is interesting to note that the high cow in the sale at $11,000 was Brockwell Royal Faith, consigned by Garner Ekstran, a 14-year-old 4-H Club boy from Washington. The cow was bred by his father, Herbert Ekstran, a farmer breeder. She was purchased by Raymond Goeringer of Pennsylvania. The top bull and the top animal of the sale was McDonald Farms Jolly Tradition from McDonald Farms, purchased by H. W. Sawin and Son, Iowa, for $15,000. This is a father and son combination who maintain a small herd.

Following is a list of those animals selling for $2,000 or more and buyers' names:

H. W. Sawin and Son, Iowa
McDonald Farms Jolly Tradition $15,000
Raymond Goeringer, Pennsylvania
Brockwell Royal Faith 11,000
Fuller Farms, Indiana
McDonald Farms Jolly Sonita 6,400
George J. Pollack, New York
McDonald Farms Rival's Teddy 6,100
McDonald Farms Pre Sister 6,100
N. B. Woolworth, Maine
Crossland Foremost Donna 3,600
Crossland Foremost Daffodil 3,600
William M. Emerson, New York
McDonald Farms S. Trumpet..... 3,500
J. M. McDonald, New York
Maplewood H. Sherry 2,500
Lieter Farm, Pennsylvania
Western Glow F. Mystery 2,000

National Holstein Sale

The National Holstein Convention Sale was held June 30 at Grand Rapids, Michigan. Under the management of C. B. Smith the sale was a good one though prices were not up to some of those obtained at previous convention sales. A total of 99 animals (11 calves under 3 months figured with their dams) sold for $86,625, an average of $875 each.

Top of the sale was Sutten Oaks Var Fayne, an exceptionally good 7-year-old cow by the Gold Medal Proven Sire, Dunloggin Strath Var. She was consigned by Cresthaven Farm of Wisconsin and was taken by sale manager Smith at the $3,000 bid.

The highest priced bull of the sale was Lakefield Fobes Baron, a showy 11-months-old son of Lakefield Winterthur Victor Fobes from Niholm Baroness Hartog, Excellent, 1,140-pound fat producer. This youngster was consigned by Lakefield Farms of Michigan and purchased for $2,550 by the Kentucky Artificial Breeders Association.

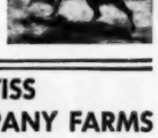
Sales manager Smith, Harvey Swartz, Glenn Casey, and Charles Backus did the selling with Herb Miller making the announcements from the box.

Following is a list of those animals selling for $1,000 or more and buyers' names:

C. B. Smith, Michigan
Sutten Oaks Var Fayne $3,000
Kentucky Artificial Breeders Assn., Kentucky
Lakefield Fobes Baron 2,550
Glenafton Tribute 1,450
Joe C. Carrington, Texas
Carnation Skylark Madcap Fay.... 2,500
C. B. Mueller, Ohio
Pabst Reburke Jude 2,200
Chambrick Holstein Farms, Illinois
Houckholme Starfire 2,200
Pickitt Acres, Michigan
Goodright Pabst Doris 2,150
Ed Don George, New York
Bothland Pietertje Aaggie Girl.... 2,150
Raymondale Farm, Vaudreuil, Quebec
Carnation Northman 2,050
T. E. Courtney, Illinois
Stonetown Alcartra Snow 2,000
Lewis S. Bell, New York
Quin Lynn Reburke Alma 1,900
Quin Lynn Reburke Kay 1,300
Glen L. Bancroft, Michigan
Milsons Marathon Successor 1,750
Donald Weick, Michigan
Osborndale Valiant 1,600
C. B. Smith, Michigan
Oostie Standout 1,400
Dr. Harry L. Weaver, Ohio
Caroldale Mistress Konigen 1,275
Haleswood Farms, Texas
Forsgate Supreme Burke 1,150
Green Meadow Stella Piebe 1,025
Bennett and Thomas, Georgia
Glenafton Princess Heibon 1,025
Adams Acres, Oklahoma
Crescent Beauty Commandess 1,000
Frank Goodyear, Pennsylvania
Culver Dictator Dean Maize 1,000
George Lorenz, Minnesota
Plain View Nina 1,000

REGISTERED BORDER COLLIES PUPPIES

now available. Bloodlines sired by Imported, National and International Champions.



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Box #123
Gurnee, Illinois

CURTISS CANDY COMPANY FARMS

Improved Stud Service

An opportunity to follow a well-defined, successful breeding program, as carried on at the Curtiss Candy Company Farms. Matings to present herd sires and looking ahead to future sires, combining the most desirable bloodlines.

Selected Matings available in all five major dairy breeds. For further information, consult your Curtiss Herd Technician in your area, or write:

LIVESTOCK DIVISION OFFICE
Cary, Illinois Telephone: Cary 5411

HOLSTEINS

HERD SIRE
WITH A BACKGROUND

We offer a young bull born 11-19-53 that is well grown with lots of type. The dam is an outstanding cow with a string of real records. The sire has wonderful type and production. Write today for pedigree, photo and price.

MEDSKER FARMS Sullivan, Indiana

HOLSTEINS GUERNSEYS

Buy direct from farms where top production dairy cattle are raised. Over 300 to select from. Located in "Heart of Indiana's Dairyland," Kosciusko County. Experienced truckers available. Also Shetland ponies.

LAKESIDE DAIRY FARMS
Silver Lake, Indiana Telephone 3801-3804

HOLSTEINS - GUERNSEYS

Choice selection of large fall freshening and springing heifers and young cows capable of heavy production. Choicest quality Grades at Farmer prices. Direct country purchases. Private daily sales. T.B. and Bang's Tested; many Calfhood Vaccinated. Reasonable delivery anywhere. Prices quoted without obligation. Buy with confidence from Ohio's oldest reliable, Licensed and Bonded Distributors. Serving the Dairy Farmer for 105 continuous years.

L. F. BROWN & COMPANY, Est. 1849
3153-57 Spring Grove Ave., Cincinnati 25, Ohio
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CARNATION O BOY
An "Excellent" Son Of The Gold Medal Sire, Hallrose Progressor

WE OFFER A SON OF CARNATION O BOY FROM A DAUGHTER OF CARNATION CHIEFTAIN

SIRED by an "Excellent" son of an "Excellent" sire, and out of a "Very Good" daughter of a "Very Good" cow, the bull we offer you this week is unusually desirable.

He is Ear Tag B-137, born March 17, 1954.

His sire, (pictured above), is from an 1107-pound Governor daughter.

His dam is a daughter of Carnation Chieftain, son of Matador Segis Ormsby.

His 6 nearest tested dams average 945 pounds of fat in 365 days. This bull carries a triple cross of Governor of Carnation breeding.

Send for his pedigree today.

Address:
CARNATION MILK FARMS
Dept. #38,
1060 Stuart Building,
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Carnation Milk Farm

EUREKA FARMS HOLSTEINS

Our herd sire, Carnation Plunderer, is sired by Carnation O Boy and from a daughter of Governor of Carnation with a 966# fat test on 3x milking. He has real type and like his calves very much. Our oldest bull calf is Sept. born and then a few to April. Tell us the age and color you like best. Their dams have been in DHIA test for years and are the result of several Crosses to Carnation bulls since 1933.

C. E. HURLBERT Stockton, Ill.

17 Registered Holstein Females

A great foundation herd for someone. We will not have barn room and must sell. 11 2-yr.-old heifers from our 2 Plus proven herd sires. We can show you their milking sisters; 400# to 500# F. 2-yr.-olds with exceptional udders. 6 great cows; young heavy producers and some great high record proven brood cows. The calves they are carrying are valuable. Mostly due in Aug., Sept., and Oct. The price is right. We are TB accredited, Bang's Negative and calfhood vaccinated. H.I.R. Ave. 308 D. 2X 11994 M—3.8%—450# F. Buy direct from a Breeders herd. Write for information, or come and see us.

THE ELDONON HERD
DONALD W. JOHNSON, Owner
Route 2 Harvard, Illinois

Buy More U. S. Savings Bonds

LASHBROOK FARM HOLSTEINS

Offer a choice selection of bull calves, up to ten months old, sired by our great young sire, L. Regal Pearl, a 3 year old son of the noted Pabst Regal, from a 737-lb. 2x. Excellent cow of rich Ormsby breeding. Dams are all A.R. cows with 2x records from 400 lbs. as junior 2 yr. olds, up to 650 lbs. as mature cows. Several from 4% dams. Send for pedigrees and descriptions.

A. J. LASHBROOK Northfield, Minnesota
(Accredited and Certified Herd)

SELECTED PEDIGREE
BORN 2-1-54
His dam pictured below at 12 years.

HIR:9-11, 2X, 365d, 17660 Milk, 4.0%, 701.4 Fat.
His 88%, Very Good, 3 yr. old sire is by a Very Good, Silver Medal Type Sire, and out of a 781 lb. Fat, 2X, Very Good dam, with over 100,000 lbs. Milk, lifetime.
For price, pedigree and information, write
SCOTT MEYER & SONS, Hannibal, Mo.

Holstein Cows and Heifers

If you're looking for cows or heifers come to Dodge County where good Holsteins are raised. Buy them first-handed and save expenses. We have 250 head of bred and springing grade and purebred Holstein cows and heifers on hand at all times. Can furnish transportation for any number large or small.

LOUIS NEHLS
Phone 4933 Juneau, Wisconsin

JEFFERSON COUNTY HOLSTEIN BREEDERS ASSN.

Registered and grade Holsteins available from top DHIA accredited herds, many using artificial breeding. Special offering of heifers bred for fall freshening. Free fieldman's services.

Write, wire or phone for prices.
CHET OUWENEEL, Fieldman Phone 1340
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HOLSTEINS FOR SALE
REGISTERED AND GRADES

A personal service for Holstein buyers. I can secure good Holsteins, all ages, registered or grades. Over 30 years experience as a breeder and buyer. Free Fieldman service. Write or wire for complete information.

HOLSTEIN SALES SERVICE
Frank Hertel, 619 Robert St., Fort Atkinson, Wis.
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COLUMBIA COUNTY HOLSTEIN BREEDERS' ASSN.

Carefully selected Holstein heifers and young cows, grade and registered, bred for type and production. Also choice, serviceable registered bulls. Mostly Burke and Carnation breeding. Free fieldman service.

For information write:
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Phone Fall River 26F21

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If in need of good dairy cows, selected from Wisconsin's oldest and most thickly populated Holstein territory, write FRANCIS DARCEY.

Tri-County Holstein Association
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DANE COUNTY HOLSTEIN BREEDERS COOPERATIVE ASSN.

Offers special sales and fieldman service on grade and purebred cattle from one of Wisconsin's largest Dairy counties where 15,000 cattle are on D.H.I.A. test and more than 30,000 are bred artificially.

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Good Dairy Cattle For Sale

Come to Barron County for good productive, healthy, commercial dairy cows and foundation pure breds. Our county associations cooperate to render sales service to buyers. Write BARRON CO. COOP. DAIRY CATTLE SALES ASS'N, BARRON, WIS.

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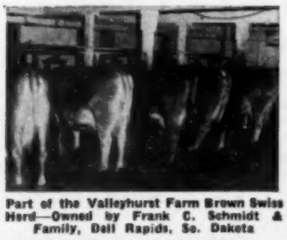
26 YEARS WITH BROWN SWISS



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The Frank Schmidt Family, Dell Rapids, So. Dakota, know what a good herd of Brown Swiss can mean to a plains farmer.

—18 Years Income Over Feed Cost—$52,086.62
During the 18 years, 1936-1953, the Valleyhurst Farm Herd of Brown Swiss have averaged 14.58 milking cows—The average annual income over feed cost has been $2,893.70, or a total of $52,086.62.

The butterfat average for the herd has been over 400 pounds for the entire 18-year period. In 1952 the herd average was 526 pounds of butterfat.

— BROWN SWISS CAN DO THE SAME FOR YOU —

For more information about the breed—Write to
BROWN SWISS ASS'N. Beloit, Wis.

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STATE FAIRGROUNDS, BIRMINGHAM, AUGUST 5TH

50 August and September freshening heifers from Illinois, Wisconsin and Washington State. Sponsored by the Alabama Holstein Association.

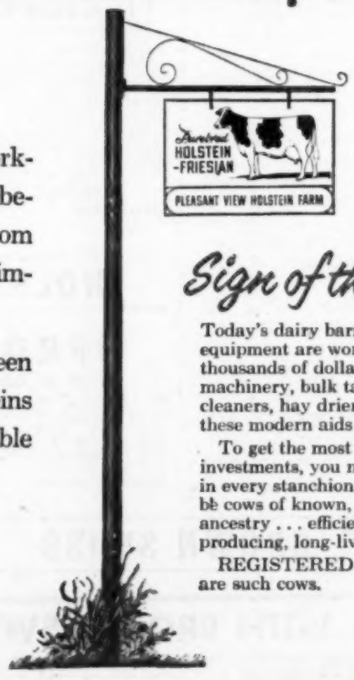
Managed by M. B. NICHOLS, St. Charles, Ill.

Need Big Capacity

REGISTERED HOLSTEINS

To take fullest advantage of forage, you need a hard-working herd of REGISTERED HOLSTEINS. *Holsteins,* because they have maximum capacity to make milk from forage. *Registered,* because ancestry records are basic to improvement through breeding.

Modern, high-quality forage is pouring out a green Niagara of feed from legume and grass pastures. Holsteins are nature's best teammate for this and other profitable new feeding practices.



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Today's dairy barns and equipment are worth many thousands of dollars. Milking machinery, bulk tanks, barn cleaners, hay driers — and all these modern aids cost real money.

To get the most from such investments, you need a top cow in every stanchion. They should be cows of known, recorded ancestry . . . efficient, high-producing, long-lived and rugged.

REGISTERED HOLSTEINS are such cows.

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Purebreds and grades, many of Pabst, Carnation, or Rag Apple blood lines. Selected from the best herds in the state of Wisconsin where better purebred sires have been used for over 30 years. We cover fifteen of the leading dairy counties in Wisconsin.

We keep in touch with the best breeders of both purebred and high grades. At present, there are special offerings in springing, high grade cows and heifers in carload or truck load lots. We service over 700 herds. Our motto is—"Quality at the lowest prices possible."

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Approx 500 for sale, T.B. and Bang's tested, calfhood vaccinated. Open and bred. Springing heifers. All stock from selected and outstanding breeds. No Stockyard cattle. Any quantity sold. One to Truckload or carload lots.

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90 Head of Dairy Cows

HOLSTEINS, GUERNSEYS and HEIFERS

for your selection on hand at all times. Come to Dodge County, Wisconsin, 50 miles northwest of Milwaukee, where heavy producing Holstein cows are raised from foundation purebreds. Priced to meet your demands, one or a carload. We have transportation for delivery to your farm. **Write or Phone.**

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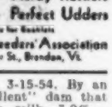

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Many of our calves out of outstanding dams have been heifers this year. We may not have enough bulls to take care of the demand. It is good business to plan your next herd sire far enough in advance so you will have the "Sire of Your Dreams." We'll plan ahead with you. Wouldn't a son of Neshaminy Kismet out of a daughter of Storm Cloud of Windrow be the right formula for you? Write Us

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"My Quonset corn dryer saved 6,000 bushels of corn for me," says Harold F. Smith, who operates a 400-acre farm near Harvard, Nebraska. "I used 876 kilowatt hours of current," reports Mr. Smith, "for a total cost of $23.02, or less than half a cent a bushel."

In two weeks the fan was run for 118¾ hours, averaging nearly 10 hours a day. Moisture content was reduced from 23.8 percent to 15.7 percent—low enough for safe storage.

Mr. Smith picked his corn earlier and was able to get at other fall work sooner. "I saved corn because it picked cleaner and with less shelling in the field," says Mr. Smith. And he adds, "With these savings and the higher price I get out of my corn for sealing it, my Quonset should pay for itself in 5 years."

Quonset corn storage and drying buildings are eligible under the new income tax provisions which permit farmers to depreciate, for tax purposes, the full value of buildings used for grain storage in five years. Under this tax provision, you can buy a profitable corn storage building and get a cash saving in your pocket this year.

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"It took just two weeks running 10 hours a day, for this fan to dry my 6,000 bushels down to a moisture content of 15.7%, which is safe for storage," says Mr. Smith.

"Loading corn into my Quonset is easy," says Mr. Smith. "Through the open door you can see the 12-foot section in the east end I left for a shop."

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THREE REGISTERED GUERNSEYS died under shade tree when lightning struck the Edwin Maynor farm, Minnesota, a few years ago.

When Lightning Strikes

. . . . Several cows may die. Look for irregular lines on the body where hair has been singed. Insurance claims require veterinarian's certificate.

by E. A. Woelffer, D.V.M.

DURING a recent electrical storm two cows were killed by lightning out of a herd of 29. The two that died had their fore feet in the water and were drinking from a creek that ran through a corner of the pasture.

Cattle during storms have a habit of hovering under trees or near a fence. If lightning strikes a tree or a fence and the animal's body completes the electrical circuit, death results from electrocution.

Figures are not available on losses from lightning stroke but they are probably higher than is realized. Cases are recorded where as many as a dozen or more animals have been electrocuted at one time.

When one or several animals are found dead in the pasture following an electrical storm, it is usually good evidence that lightning was the cause. It is a mistake to assume this is the case, however, without a thorough investigation.

Death may be due to other conditions such as bloat, anthrax, blackleg, or a form of poisoning. Lightning could very well be an incidental occurrence. Before the carcass is hauled away or buried, it is important to obtain your veterinarian's diagnosis or opinion.

Death due to lightning stroke is often difficult to determine because changes in the tissues are usually very indistinct. One of the most positive signs are irregular lines on the body or carcass caused by singeing of the hair. The point of contact or entry may be one of the ears, the nose, or some other part of the body, particularly the back.

The singed line can usually be traced downward on one of the legs to the ground. The path of the bolt is sometimes quite easy to follow. At other times it is indistinct. Sometimes the path can be more readily followed after the hide has been removed.

An animal that was killed instantly often exhibits other evidence. Sometimes a tuft of grass is observed clenched in the teeth, indicating that the animal was grazing. Often there is bloody foam in the nostrils and mouth. Soon after death from lightning rigor mortis or hardening of the muscles usually sets in.

When the carcass is opened, the blood will be found fluid; the liver and spleen congested as in death from asphyxia (such as from suffocation or drowning). Also, the lungs are usually congested.

Additional proof that death may have occurred as a result of lightning, following an electrical storm, is the finding of dead animals under a tree, along a fence, or other suitable carrier of electricity. Occasionally the head of a dead animal will be found between two strands of fence wire.

We have heard it expressed that oak trees are especially dangerous. There is no good evidence to show that this is true since death from lightning is common in sections where oak trees do not grow.

Sometimes animals are hit but not killed by lightning. Those that survive often show variable forms and degrees of injury. Frequently one or more of the legs will be found paralyzed, which is mostly a temporary condition. Very occasionally there is a deep mechanical injury which leaves the victim permanently crippled.

In addition to the paralysis, the affected animal may show a numbness, have dizzy spells, and become blind. Also, there may be loss of consciousness in variable degrees.

When an animal dies and the probable cause of death is lightning stroke, immediately contact your insurance company. Before an indemnity payment is made, the insurance company usually requires a written statement from a veterinarian indicating death from lightning.

Low-producing cows are a waste of feed and space, according to Floyd Arnold, extension dairyman at Iowa State College. He says cows producing less than 250 pounds of butterfat a year don't pay their way.

VETERINARY COLUMN

E. A. WOELFFER, D.V.M.

Abnormal Fat in Abdomen

A cattle disease seldom described in veterinary literature is bovine lipomatosis, sometimes referred to as fatty degeneration or fat necrosis. There are some disease conditions we hear very little about, principally because they are of little significance.

This is not necessarily true of bovine lipomatosis. An English veterinarian, who has observed routine inspections at slaughterhouses in England indicates this condition is quite common.

The fatty growths, or lesions, occur in the abdominal cavity. They vary greatly in size and shape. Their external surfaces are usually determined by the adjacent structure or organs. For example, a large lesion next to the rumen may be slightly concave to conform with the wall of the rumen. A lesion on the other side is shaped to fit in with the intestines.

The lesions as a rule, are quite firm and hard, particularly those that contain some fibrous tissue. When fibrous tissue is present, it is referred to as fibro-lipomatosis. Usually the surface of the fat accumulation can be slightly pitted with the thumb and finger.

Diagnosis . . .

Bovine lipomatosis can be determined by rectal palpation. Veterinarians skilled in such examinations have little difficulty in recognizing the lesions. However, they must be differentiated from tuberculous peritonitis, organized uterine adhesions following local injury or peritonitis, and, of course, pregnancy, extra uterine pregnancy, or mummified fetus.

In our practice, most of the lesions found are the size of and shaped like homemade cookies. It is not uncommon to find so many of the lesions packed around the posterior bowel that it is either impossible or barely possible to palpate the uterine horns and ovaries.

The English report indicates that lipomatosis is predominantly found in the high butterfat breeds. This conforms with our observations. However we have encountered the condition in Holsteins, Ayrshires, and some of the beef breeds.

Importance not known . . .

Little information is available on the disease relative to its economic importance or its effects upon the health of the individual. In view of this, we invite correspondence from our readers. Experiences of veterinary clinicians and inspectors at the large packing plants would be especially valuable.

Cases found in our practice have been mostly in mature cows that are in good condition but have relatively poor breeding histories. Whether the development of the abnormal fat lesions was the cause, or the result, of infertility, we are unable to determine.

When the lesions become prominent, particularly in the region of the reproductive tract, such females seldom become pregnant. On the other hand, when the fatty growths are located farther forward in the abdomen, their presence seems to have little effect upon reproduction.

We have in mind an 8-year-old Guernsey cow that, over a period of six months, lost flesh, became progressively weaker, and finally died. Rectal palpation and postmortem examination revealed extensive lipomatosis in the abdominal cavity. Since other reasons for the decline in health and death could not be determined, the extensive lipomatosis was believed to be the underlying, or at least a contributing, cause.

What has been your experience with this condition?

SEPTICEMIA IN LAMBS

We raise 15 or 16 lambs a year. Every year when they get 2 to 3 months old, they get a dark green diarrhea. In a few days they die; foam comes out of their mouths and they seem to have a lot of pain, moaning and gritting their teeth.

The veterinarian calls it septicemia. We vaccinated for that in March and in May we had lost two. We vaccinated again and now have lost four. What is this? What causes it? What can we do for the lambs? How can we prevent it?

We weren't troubled with this the first year we had sheep, just the last four years.

Denver, Iowa L. K.

We are of the opinion that your lambs are suffering from a septicemia as indicated by your veterinarian. More specifically, it is called entero-toxemia or over-eating disease. This is an acute disease of sheep affecting mainly animals in a high state of nutrition that are on a lush feed such as milk, grass, or grain.

Lambs can be fairly well protected by the use of a suitable bacterin. If injections are made in the early stages, an antitoxin is useful in curing the disease. It has been found that immunization is helpful but that many practical difficulties lie in the way of its widespread use.

It has also been found that management practices have a great influence on losses. For example, ewes and lambs on lush pasture, where lambs are getting large supplies of milk appears to be favorable influences for development. Placing the ewes on scanty or brush forage, or even penning them in dry lots reduces the loss in nursing lambs.

If the animals are on grain ration, reducing the grain feeding is essential. However, since grain is necessary for fattening, handling the problem by this means is not easy. The fattening of lambs on grain requires a great deal of care. It will be further helpful if the lambs are carefully sorted according to size. Then the grain troughs must be carefully watched so that no lamb gets more than its share. Lambs must be started on small amounts of grain and increases must be made gradually.

At the first sign of scouring or failure to eat, the ration must be reduced. Radical changes must be avoided.

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in treating MASTITIS

New Squibb Base of *New* Pendistrin disperses highly-potent antibiotic combination promptly and thoroughly throughout the treated quarter.

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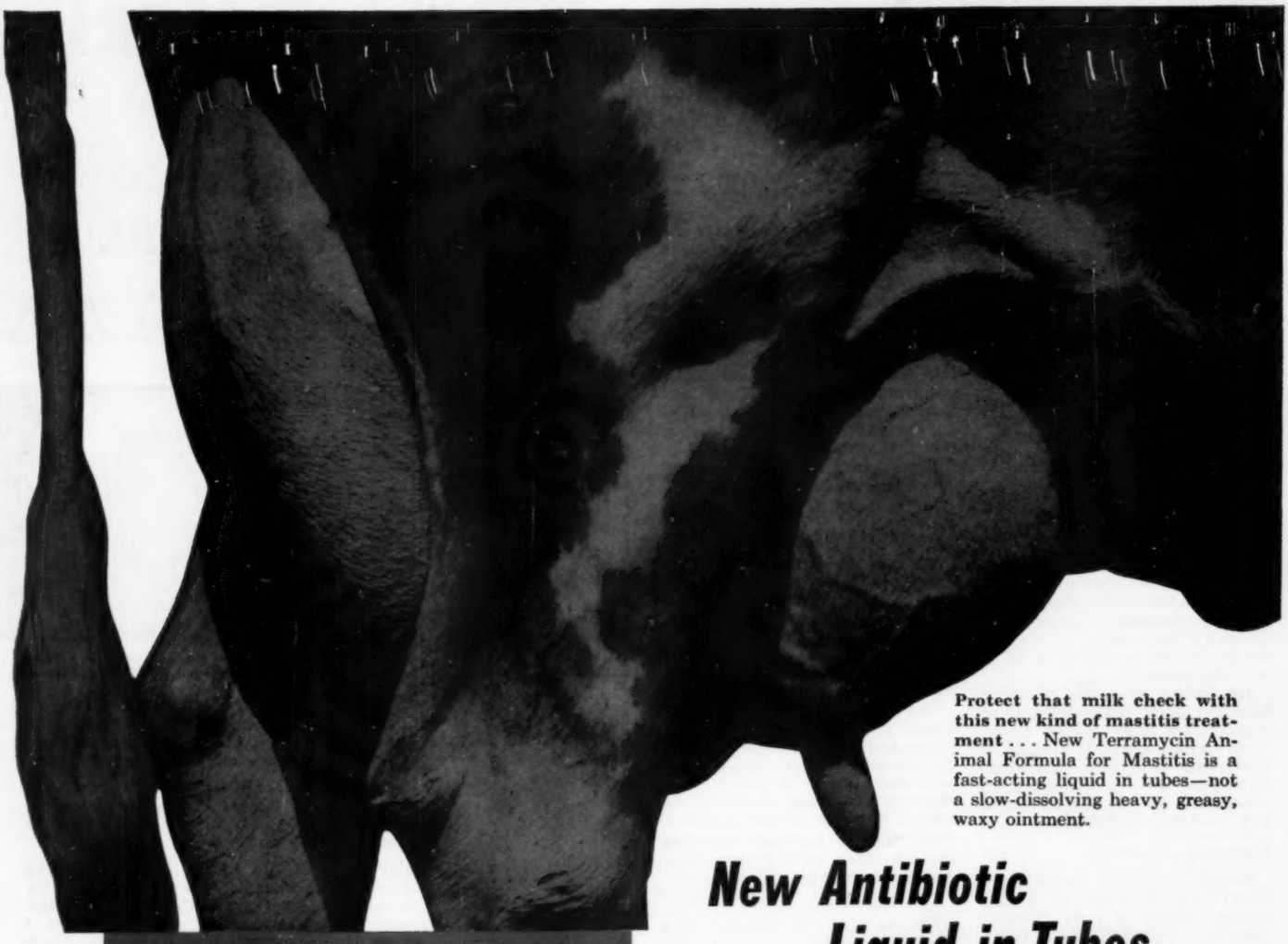
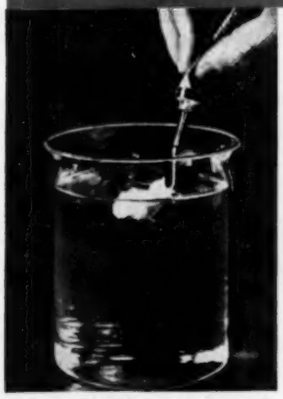


Protect that milk check with this new kind of mastitis treatment . . . New Terramycin Animal Formula for Mastitis is a fast-acting liquid in tubes—not a slow-dissolving heavy, greasy, waxy ointment.

WHICH REMEDY WILL CURE MASTITIS FIRST?



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It contains wonder-working Terramycin, more powerful than penicillin against the many organisms causing mastitis. And it milks out completely.

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